

243122

JPRS-UEA-88-023

24 JUNE 1988



**FOREIGN  
BROADCAST  
INFORMATION  
SERVICE**

# ***JPRS Report***

## **Soviet Union**

### ***Economic Affairs***

009 DEPT. COMMERCE  
NTIS  
SPRINGFIELD, VA 22161  
(NO FCHC)  
ATTN VIA NTIS COURIER

187

**DISTRIBUTION STATEMENT A**  
Approved for Public Release  
Distribution Unlimited

REPRODUCED BY  
**NATIONAL TECHNICAL  
INFORMATION SERVICE**  
U.S. DEPARTMENT OF COMMERCE  
SPRINGFIELD, VA. 22161

19990324 159

10  
78  
A05

# Soviet Union

## Economic Affairs

JPRS-UEA-88-023

### CONTENTS

24 JUNE 1988

Soviet books and journal articles displaying a copyright notice are reproduced and sold by NTIS with permission of the copyright agency of the Soviet Union. Permission for further reproduction must be obtained from copyright owner.

## NATIONAL ECONOMY

### ECONOMIC POLICY, ORGANIZATION, MANAGEMENT

Journal Discusses Progress, Problems in Restructuring .....	1
Directors Club Meeting Summarized [ <i>EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA (EKO)</i> , No 3, Mar 88] .....	1
Directors' Club Meeting Summarized [ <i>A. G. Aganbegyan, Yu. G. Shelyukhin; EKONOMIKA I ORGANIZATSIYA</i> <i>PROMYSHLENNOGO PROIZVODSTVA</i> , No 3, Mar 88] .....	1
Industry Directors Surveyed [ <i>L. Shcherbakova; EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO</i> <i>PROIZVODSTVA</i> , No 3, Mar 88] .....	6
Association Director on Contradictions [ <i>V. S. Mamontov; EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO</i> <i>PROIZVODSTVA</i> , No 3, Mar 88] .....	15
Production Association Success Examined [ <i>M. Turayeva; EKONOMICHESKAYA GAZETA</i> , No 17, Apr 88] .....	16
Gossnab Official Interviewed on Contract Extension Process [ <i>Yu. P. Boyev, Yu. Yakutin; EKONOMICHESKAYA GAZETA</i> , No 18, Apr 88] .....	18
Need To Reexamine System of Fines, Sanctions Advocated [ <i>P. Akhmadeyev; EKONOMICHESKAYA GAZETA</i> , No 18, Apr 88] .....	20
Worker Competition Examined at Shop Level .....	23

### INVESTMENT, PRICES, BUDGET, FINANCE

Greater Capital Investment Proposed Under New Investment Policy [ <i>A. Malygin; PLANOVOYE KHOZYAYSTVO</i> , No 4, Apr 88] .....	26
Enterprise Experiment with Economic Risk Fund Detailed [ <i>S. Aleksashenko, S. Zenkin; EKONOMICHESKAYA GAZETA</i> , No 16, Apr 88] .....	33

### RESOURCE UTILIZATION, SUPPLY

Gossnab Move From Central Supply to Wholesale Trade Outlined [ <i>MATERIALNO-TEKHNICHESKOYE SNABZHENIYE</i> , No 3, Mar 88] .....	35
Role of Gossnab Territorial Commercial Centers Described [ <i>O. Amurzhuyev; MATERIALNO-TEKHNICHESKOYE SNABZHENIYE</i> , No 3, Mar 88] .....	38

### MODELING, ECONOMETRICS, COMPUTERIZATION

Computer Network Proposed for Gossnab [ <i>N. Cherezova; MATERIALNO-TEKHNICHESKOYE SNABZHENIYE</i> , No 3, Mar 88] .....	41
---	----

## AGRICULTURE

### LIVESTOCK AND FEED PROCUREMENT

Falsification of Figures in Livestock, Grain Sectors [ <i>L. Ivanov; LITERATURNAYA GAZETA</i> , No 19, 11 May 88] .....	45
--	----

## CONSTRUCTION

### BUILDING MATERIALS

Council Examines Cement Industry Retooling	[L.N. Grikevich; TSEMENT, No 2, Feb 88]	48
New Scientific-Production Association Created	[TSEMENT, No 2, Feb 88]	53

## MACHINEBUILDING

### PRODUCTION

Industrial Production Successes, Shortfalls Detailed	[VESTNIK MASHINOSTROYENIYA, No 3, Mar 88]	54
--	---	----

## TRANSPORTATION

### MOTOR VEHICLES, HIGHWAYS

'OKA' Plant Location Debated	[A. Blokhin; IZVESTIYA, 5 May 88]	57
Road Accident Statistics Detailed	[Ye. Shestinskiy; IZVESTIYA, 28 Apr 88]	58

### RAIL SYSTEMS

Rail Transport Self-Financing Shortfall R1.6 Billion	[M. Kaganskiy; GUDOK, 8 May 88]	60
Railway Conference Examines New Economic Programs	[M. Kaganskiy; GUDOK, 29 Mar 88]	62
Ministry's New Foreign Trade Firm Detailed	[M. Kaganskiy; GUDOK, 9 May 88]	66
BAM Construction Problems Noted	[S. Kokorev; GUDOK, 13 May 88]	68
Increasing Efficiency of Container Transport	[A. I. Yeroshenko; N. M. Ivanitskiy; ZHELEZNODOROZHNYI TRANSPORT, Mar 88]	70

## ECONOMIC POLICY, ORGANIZATION, MANAGEMENT

### Journal Discusses Progress, Problems in Restructuring

#### Directors Club Meeting Summarized

18200176 *Novosibirsk EKONOMIKA I  
ORGANIZATSIYA PROMYSHLENNOGO  
PROIZVODSTVA (EKO) in Russian No 3, Mar 88*  
(signed to press 29 Jan 88) p 46

[Text] In 1986 our magazine announced to the readers that along with other periodicals it was taking on a difficult task of tracing how the restructuring of the economic mechanism is proceeding in our country. This task is difficult primarily because the desire to restructure sometimes puts people in too cheerful a mood. Yet it is important to know the stage we are in today and the initial level from which we begin our movement for fulfilling the decisions of the July (1987) Plenum of the CPSU Central Committee.

We regard leaders of industrial enterprises of Novosibirsk as experts from the very center of restructuring for dozens of branches of industry are represented here.

We consider it of principal importance to focus attention once again on problems bothering managers of industrial enterprises that were declared at the plenum to be the "point of departure for radical transformations of the economic mechanism." We have not especially tried to "smooth out" the statements, thus leaving the emotions, the passions, and generally everything that accompanies any involved informal conversation.

The gathering place for the experts was the Novosibirsk EKO Directors Club, which has been actively operating for more than 3 years. The first materials having to do with the discussion of the course of the restructuring have already been published (see EKO No 3, 1986; No 3, 1987). Today we are publishing a survey of statements at the regular meeting of the Directors Club of Novosibirsk, materials from a questionnaire, and also the statement of the general director of the Severyanka Sewing Production Association, V. F. Lamontov, concerning certain paradoxes in the restructuring. The discussion was led by the editor in chief of EKO, Academician A. G. Aganbegyan, and the representative of the club of directors of Novosibirsk, candidate of technical sciences Yu. G. Shelyukhin.

#### Directors' Club Meeting Summarized

18200176 *Novosibirsk EKONOMIKA I  
ORGANIZATSIYA PROMYSHLENNOGO  
PROIZVODSTVA (EKO) in Russian No 3, Mar 88*  
(signed to press 29 Jan 88) p 47-58

[Discussion led by Academician A. G. Aganbegyan, editor in chief of EKO, and candidate of technical sciences Yu. G. Shelyukhin, chairman of the Novosibirsk Directors Club: "Restructuring and the Apparatus"]

[Text] You begin to be especially aware of the complexity and the revolutionary nature of the tasks set by the CPSU Central Committee if you delve into the problems

being solved by the country's national economy, the specific branch, the enterprise, shop or brigade, and, finally, the working person. And only then do you understand the superficiality and harmfulness of attempts to show impressive changes in places where only the first little step has been taken, and moreover the restructuring ends up being sabotaged by the disorientation caused by these premature reports of victory in which the main thing is to make the actual situation conform to a previously known answer, to paint a pretty picture (for whom?) and to inspire unjustified optimism (why?!). Information, including feedback, should be irrefragable and should correctly reflect the actual state of affairs. This is simply necessary now when, as the participant in the meeting in the club of directors, Hero of Socialist Labor V. V. Koslov said, "We are energetically searching for ways of intensification in publishing decrees pertaining to various aspects of economic activity. The effectiveness of some has been verified while others still have to stand the test of practice."

The mechanism for opposing the restructuring was discussed by many speakers in the club. Where is the holdup? First of all at the level of the staffs of the central departmental agencies. Restructuring has practically not even touched this level. Here they can by no means refrain from old work methods, including petty supervision of enterprises, and change over to analytical work, to work for determining the prospects for the development of the branch. Serious analytical work is replaced by campaigns. V. V. Kozlov: "Work for increasing the shift operation of equipment is being transformed before our very eyes into a regular campaign. Today party and soviet agencies, state agencies, and branch authorities are working on shift work. Shift work is being transformed from a means of increasing the effectiveness of the utilization of fixed capital into a goal in itself, that is, there is a severance from the essence of the problem and from the final results of the work."

"The fundamental reason for the low level of shift work undoubtedly lies in the surplus number of work positions. For a long time more and more new work places were created without analyzing the existing state of affairs, without the necessary calculations and justifications, and without taking into account the state of affairs with resources of work force in the region. This, in my opinion, is what led to the weakening of the agricultural sector of Novosibirsk Oblast and not only it. Here is an example. By a decision of the RSFSR Council of Ministers our association was allotted 12,000 hectares of land in Toguchinskiy Rayon for organizing a subsidiary farm. The land was in an extremely neglected state. Throughout the entire area at the time the land was transferred there was only one little village in which some 50 people lived. Only 29 of them could work. There was no medical point, no lighting, no store, no school—there was nothing. And yet at one time there were four villages and four kolkhozes there. Where are they? They were swallowed up by the city and swallowed up by industry."



"Today the mechanism for making decisions in industry is almost the same as it has always been. A course has been taken toward technical reequipment and reconstruction, and again each branch is beginning to build. Look how many production facilities are being built in our city! And how will they be filled? Where will they find the workers? Time passes but the approach to solving the most important problems remains the same."

The same thing was discussed in the statement by V. G. Voronin, deputy general director of the Pavlodar Tractor Plant for Economics: "It is generally known that the plan should be established on the basis of economic and engineering calculations. But the ministry has forgotten about that. Any statement we make against unsubstantiated plans is unceremoniously commented upon as though we were against acceleration and against restructuring. The enterprise's collective suffers as a result."

A. N. Kurtsevich, general director of the Sibir Leather Haberdashery Association: "Economic management methods are being intensively assimilated in the association. Everyone, both the workers and the director, must learn. The new system of directive indicators, the change in price setting, and the introduction of stable economic normatives have undoubtedly expanded the rights of the production collective. But, on the other hand, the work has become considerably more complicated and intense, especially in the area of management of the enterprise. Therefore one feels very keenly the need for a new approach to management of the enterprise."

"In our association more and more attention is now being devoted to questions of strategic planning and management, that is, management of comprehensive economic, scientific-technical and social development that is oriented toward the achievement of the long-term goals that have been set for the collective. During the past 2 years we have devoted significant attention to multivariant development of the production program depending on the possible changes in external factors. This approach helps to some degree to compensate for the essential shortcomings in the area of material and technical supply and planning."

"But we see our main problem in making sure that the higher agencies follow the 'spirit and the letter' of the new economic policy. I do not think that there is any need to explain the importance of the principle of stability of economic normatives. It is stable normatives, in our opinion, that will help to put production reserves to work more energetically. But in practice something else is observed. Three times already our enterprise has been given new values for normatives for deduction of profit into the budget. This state of affairs, of course, does not contribute to increasing the effectiveness of production and forces us to work with an eye to reserves. For this reason I think that it would be worthwhile to consider the question of unchanging normatives not for 5 years, as is now the case, but for a longer period of time."

In the club there have been many conversations about the plan. And this is understandable: the position of the collective of any enterprise depends entirely on its fulfillment. A. S. Valeyev, director of the chemical and pharmaceutical plant, gave a new impetus to this discussion: "Ask the people at various levels of production what is now the main thing that is given priority in their affairs. The sincere answer will always be the same: the fulfillment of the plan. But the quantitative indicators of the plan as the plans are constantly increasing and the sinking of the production worker—from the rank and file worker to the director—continues to revolve around their achievement. The requirement to improve the quality has not removed the priority from the rates. Naturally, the breadth of the content of the concept 'Plans' varies. The higher the level of management the more strongly the economic, qualitative, scientific-technical, and social factors of production are manifested. But, unfortunately, so far there have been no attempts at an in-depth analysis in order to determine the growth rates of the production of a specific enterprise. The work of the enterprise under the new conditions creates interest and high rates but does it always succeed in extending this interest to each subdivision or worker? And if not, consequently, these incentives are not always working."

"At our plant a large part of the gross volume is obtained as a result of less labor-intensive products which even today are limited (in terms of material resources and demands) but still there is a demand for ampule products that are very labor-intensive and difficult to assimilate in production. If one takes the monetary ratio between the first and second group of products, it is 9:1, but in terms of labor-intensiveness it is 1:3. It is not difficult to see what the plant gets from one norm-hour of these two kinds of products. When manufacturing products of the second group, in order to obtain the given growth of production it is necessary to make significant capital investments but the economic situation has developed in such a way that the enterprise, in order to have high rates, has increased the output of products of the first group. This was encouraged and objective factors also contributed to this situation."

"Understandably, in such a situation with a 'flourish of the pen' by changing the structure of the plan it is possible to sharply change the economic results. These contradictions are manifested especially clearly under the conditions of the shortage of the work force, the increased demands for quality, and responsibility for the final results, when the interests of the collective, the branch, and the society should coincide."

"During the first year of the 12th Five-Year Plan the rates of reconstruction of the plant doubled but, on the other hand, there was a greater imbalance in the plan for labor-intensiveness, for providing the required quality, and for material and technical supply. This was also directly reflected in the economic results. And still on the agenda today is a revision of the rates and salaries"

through internal reserves. There are large tasks for implementing a social program. So far there is no occasion to speak about economic maneuvering in management other than when it means to reduce material expenditures in production. But how do we reduce the number of personnel when just as many people are being taken away for work that is not related to production? Two shops in the plan are operating under conditions of the collective contract and now another shop is changing over to the collective contract. Things are developing in such a way that the "heavy" shops whose production is being impeded because of a number of external factors are ending up on the contract. And the first question of the councils of the contract collectives is: Is the plan balanced? Tomorrow this question will be heard at the council of the labor collective. But how will the director respond to this once again?

"In order to gain the opportunity of effective maneuvering and to engage more actively in restructuring production, increasing the real capacities, and solving large social problems in all the complexity of the requirements of the present day, it is necessary to proceed more boldly along the path of consolidating small and medium-sized enterprises and creating branch complexes in the region with machine-building and general building bases, and with unified production, technical and economic management. Only then will there be freedom to maneuver, which is absolutely lacking today."

Frequently the inaction of the ministries in determining the prospects for the development of the enterprises leads to a discreditation of party decisions. It is known that by the year 2000 every family should have a separate apartment. This task was placed largely on the shoulders of the enterprises. But with the profitability of items—said N. D. Matveyev, general director of the Sorevnovaniye Sewing Association—which has developed at the enterprises each year it is possible to allot 80,000-100,000 rubles per housing. Even if the ministry helps and gives a subsidy of about 300,000, even then the association will not be able to fulfill this task until the year 2010. And why is the profitability of the item so low? Because 70 percent of the workers produce items according to the state order, because the "ideology" of the management of the branch—to produce products in small series and be oriented only toward the oblast market—places the enterprise in disadvantageous economic condition. This is how the decree of the CPSU Central Committee and the state of affairs in the branch objectively contradict one another.

Moreover, a number of ministries, as was noted at the Directors' Club, particularly the ministries of Power Engineering and Finance and also central economic organizations (the Gosnab, for example) put out documents that arbitrarily interpret the decisions of the party central committee and the government. But what is this? Is it that we are singing old songs in new times?

The branch staffs have programs for technical reequipping that are directed toward the introduction of the achievements of scientific and technical progress. The initial and major stage of this process is the creation of new technical equipment. What we create today will be in operation tomorrow. To a significant degree this phase depends on how the branch controls the process of the creation of the creation of new technical equipment, regulates technical parameters, and efficiently invests funds in the development of branch or plant science. Today many ministries are essentially starting from the beginning in their work in this area. When the staff of the ministries was reduced there was basically a "shifting" of people from place to place: the funds of the ministry were assigned to the head institutes and many comrades went there but plant science did not receive all of these funds. This "shifting" did not improve anything in the branch institutes or in the plants either. During the past 10 years fewer and fewer design developments come to the plants, as G. I. Orlov, chief of the special design bureau of the Sibelektroterm PO, said. But the plant sector of science is not being properly developed either. After the bureau for machine building of the USSR Council of Ministers was created there was the hope that the situation of the branch scientific research institutes would change. But this did not happen. The production workers are only experiencing the fact that the annual institutes have shifted to mass filling out of papers, for example, about the items that they will produce before the year 2000.

Complete independence prevails in questions of reconstruction. Frequently for reconstruction the equipment is purchased first and then the plan is prepared. Hence the lack of thought about decisions, today's reconstruction is imbued with ideas from yesterday and, as before, questions of technology are tied up.

How does one cope with departmental prejudice and outbursts of bureaucratic abuses, how does one make the ministries into staffs for the branches? No simple or sufficiently clear answer could be found. Did they reduce them? Yes, they did. Did they criticize them? Yes, any issue of a newspaper or magazine contains criticism about the ministries! That they do not correspond to the tasks of the day is a generally recognized fact. But no real work for redistributing their functions is being done.

Where do they get their unsinkability? Why do they not wish to (or are they unable to?) work in the new way? It would seem that there is still a great deal to straighten out here. And not in the Directors' Club.

Perhaps the slow progress of real restructuring also has something to do with the fact that now the word "restructuring" never leaves the pages of newspapers or the television, said candidate of economic sciences, General Director of the Sibbiofarm PO B. V. Prilepskiy in the club. The press and television have come to use this word in a very unspecific way. A campaign attitude and agitation are created which erode and muddy the

essence of the matter. It is necessary to get away from campaigns and shop work. But still the position of the Gosplan and the Council of Ministers must be more consistent and modern so that in the local areas people do not just move from side to side. For behind the leaders of the enterprises come the collective, and it is very difficult to work with the collective. We shall not achieve a large effect if we put all our eggs in one basket. Only a comprehensive approach will enable us to radically change things. And comprehensiveness is only possible with an analytic approach. This is very strange and at first glance improbable, but directors of enterprises are frequently called in to the board of the ministry and to the offices of deputies and ministers not for a business conversation among professionals but in order to get information out of them. Such is the interrelations with party organizations as well. Only the attitudes here are more rigid and frequently those who do not understand wave their arms under the flag of decisions of the 27th CPSU Congress. And the understanding of the essence of restructuring and party organizations is far from always at the proper level while a disagreement with their viewpoint is encountered with a sanctimonious phrase: "You have not restructured yet." But there can be no forward movement when everybody agrees with everyone else. It is precisely contradictions that are the motor of progress.

The extremely poor organization of those taken away from industrial enterprises depends largely on the outdated work methods of party agencies. In and of itself this is a painful matter although everybody has already become accustomed to the idea that neither construction nor agriculture will be able to do without help from city dwellers in the foreseeable future. But in the majority of cases this assistance is organized poorly throughout.

Taking people away from their main job today goes beyond the bounds of reason. Everyone discussed this in the club. These people are taken everywhere! In the fall—up to 5,000 people from just one of the city's large machine-building associations! People earn 10-15 rubles a month in construction. If industry assigns workers, participants in the meeting said, let them pay the average wage or use them so that they are paid more than they are at enterprises. People engaged in the construction of hospitals, housing, at the meat combine.... Previously they sent people for agricultural work only in the autumn, but now they are sent at any time of year.

Veteran managers recall 1952 when Novosibirsk Oblast was building hothouses under the same kind of emergency. It was decided to construct 50 hothouses on the sovkhozes and kolkhozes. One of the city's associations was working on the Yarovskiy Sovkhoz. They constructed these houses and released them along with the boiler. A year later they came to the sovkhoz and in these hothouses there was a—hogsty....

The managers of enterprises that are operating stably are clearly not satisfied with the desire of ministries and local party organizations "to give everyone a little" and

place everyone in an equal position. Why is everybody treated the same? Simply because we are not well aware of the state of affairs at the enterprises? Out of laziness? Because of inertia? Because of our habit of transforming any good cause into a campaign? Or is this a completely deliberate action against restructuring? N. P. Yevdokimov discussed this in the club:

"Often the word 'restructuring' is even offensive. The fact is that some have worked well, the work of others is average, and still others have worked poorly, but now all of them have ended up in the same situation and all of them must 'restructure.' For two five-year plans our enterprise has been operating stably and has increased the output of products by tens of millions of rubles without increasing the number of personnel. We intend to work at the same rate up until 1990. And our quality is good and therefore state acceptance does not frighten us just as it should not frighten anybody else. Why do we need to place this plant on an equal footing with one that has never been outstanding?"

A typical omission of the central agencies is the lack of an effective system of information on the scale of the branches and the country as a whole. As a rule, the managers of enterprises have weak and incomplete knowledge about advanced experience, both domestic and worldwide, and about innovations in technical equipment and the organization of production. The lack of concrete scientific and technical information is an inadmissible shortcoming, especially during the period of restructuring. Those in attendance at the club noted that they are almost never allowed to visit similar enterprises abroad. The leaders of branches, main administrations and other administrations are sent on these business trips, but their information is scanty and it does not reach the enterprises.

It was noted in the club that the ministries are not only changing their style of work but a great deal of confusion is appearing in their work. Officials, afraid of taking a risk at such a turbulent time, are avoiding responsibility and do not have the courage to sign documents that are important for the enterprises. Similar situations have already been written about in EKO. At the same time they have increased the flow of paperwork. "Half-baked" documents, which frequently contradict one another, continue to "pour" over the enterprises in spite of anything. But now this is justified by references to restructuring....

The State Committee on Statistics reported on a reduction of bookkeeping but in fact there was no reduction and operational bookkeeping increased considerably. At a plant with an average number of personnel just a list of the bookkeeping reports today takes up 14 typed pages, and operational bookkeeping—two pages. Local soviet and party organizations also make their contribution. Each day the director of a large enterprise has to spend 2.5 hours just to look quickly over the papers that come in. Each day there are 28-30 orders and resolutions



covering 25-30 pages. While 10-12 years ago an enterprise produced 40,000 units of documentation a year, today it produces more than 100,000.

Concluding the discussion, EKO Editor in Chief A. G. Aganbegyan said that the time of preparation and partial experiments has passed. The country has entered a new stage—the stage of action. Its key aspects are the price reform, the reform of the financial and credit mechanism, and the changeover to wholesale trade and direct ties.

Considering the results of the restructuring of the economy over the past 3 years—since the April (1985) Plenum of the CPSU Central Committee—it is possible to draw the conclusion that a breakthrough has been made in all three basic directions:

changing the national economy over to the passive intensive development, radical acceleration of scientific and technical progress, the implementation of a new investment and structural policy, and a policy of technical reconstruction of the national economy;

implementation of the radical reform of management of the entire economic mechanism. Nationwide discussion of the draft of the Law on the State Enterprise (Association) is a most important indicator of this;

a change in the development of the country's national economy in the direction of priority solutions to social problems and the provision of the well-being of the members of our society.

So far the positive changes have been achieved to a significant degree as a result of imposing order and discipline. A solid basis has not yet been placed under the restructuring. Therefore there are interruptions in the development, as was the case in the first quarter of 1987. The task of the near future is to actually achieve a major change and make restructuring irreversible.

As we know, more than 70 associations have given the right to enter the world market. Of the possible organizational forms, we wish to take note of the creation of foreign trade firms. Up to 70 percent of the foreign currency obtained from exports remains at the disposal of the enterprises and certain restrictions on interrelations with socialist countries will be removed. But because of the poor quality of our products we cannot utilize these advantages today: our machines are basically at an extremely low price because they require reworking. If one were to take such a not very "strict" indicator as the average price for 1 kilogram of technical equipment delivered, it is less than the world price by a factor of 2.5. Many of our machines do not suit the consumer in terms of their parameters. For example, the Volga automobile. It fails to meet the requirements of the European countries with respect to 13 parameters. What has been said pertains to a fairly large number of

agricultural items. Even such an apparently fairly good automobile as the Zhiguli requires a large amount of additional work (labor expenditures are doubled here) before it is sold abroad.

It is clear from what has been said that the problem of quality is the most crucial one today. We are producing a very large amount but because of the poor quality all of this is ineffective. For example, we produce 4.5 times more tractors than the United States but we wish to build one more plant so as to produce even more of them. We produce twice as many combines as the United States and we are continuing to increase their output. We produce twice as much metal as the United States and three times as much as the European countries. But where is this taking us? It is clear from the long-range calculations of the branches. Thus the Ministry of Tractor and Agricultural Machine Building did a calculation according to which one-third of the metal must go for producing agricultural equipment.... And yet it is necessary to take into account the incredible expenditures on items to be used with the equipment, its repair, and its utilization.

The difficult situation has led to a point where the government has resorted to extreme, extraordinary temporary measures: state acceptance. The fact is that economic measures are not yet working adequately because today the consumer is without rights. It is always possible to persuade him not to demand a fine because he is completely dependent on the producer: he has no choice. He cannot reject one supplier and conclude an agreement with another. Now they take what they can get and finish it, mend it, rework it, and eliminate the shortcomings when it is inspected upon receipt. Therefore the consumer does not yet control quality: since the products are distributed to him he has no choice. And in order for there to be a choice it is necessary to change the prices and change over to wholesale trade and direct ties, and to make exhibits commercial. Then there will be a selection and economic competition. This is the direction in which things are leading.

What has state acceptance shown? A considerable proportion of the parts are produced without blueprints, all of the technical specifications are violated, and the items are just as though they were "made with a sledgehammer." Hence, naturally, these items do not work. For example, an average of three parts on a single television set malfunctioned during the time of the warranty period.

Of course state acceptance puts the enterprise in the condition of shock because in the majority of enterprises the proportion of defective products is extremely high, although before this it seemed that everything was in order, as was the case at one time at the well-known Frazer Plant.

What has been said pertains to other enterprises as well. At KamAZ, for example, there are no objective reasons for the poor-quality products and yet they are produced.

And now about temporary reassignments. The Law on the State Enterprise (Association) has a fairly rigid entry: temporary reassignments should take place only on a cost-accounting basis with no exceptions. An agreement must be concluded with the construction workers. Let us take a look at how this appears in reality.

But so far it is absolutely impossible to keep up with, in the first place, the boundless sea of inspections by purely administrative methods and the actual encroachment on the rights of the enterprises and, in the second place, the flow of paperwork. This is a real problem. Therefore EKO magazine is waiting for interesting fundamental suggestions regarding this. One thing is clear: it is necessary to reduce it. But how? To establish a normative? And there is one other problem that has not yet been resolved: what to do with the ministries? The staffs of individual ministries have been cut by 18 percent—this did not help anything, because the "productivity" of the "bureaucrats" even increased. How can we arrange things so that they do not impede our operation and still do their work? Through technical progress? The same thing pertains to central organizations. The decisions of the July Plenum indicate the direction but we still must take this path.

And so the restructuring of management includes self-financing, self-recoupment, complete cost accounting, a gradual reduction of the number of address indicators, gradual development of wholesale trade, direct ties, and so forth, a reduction of all kinds of regulation of the activity of enterprises, and increased responsibility of enterprises for the results of their activity.

The main problem now is psychological restructuring. So far restructuring has been proceeding irregularly and painfully, with great difficulties, and it is doing a poor job of overcoming the forces of inertia. Apathy, indifference, and a deterioration of the attitude toward labor, which we have witnessed for many years, have accumulated gradually. And now they are being felt. It is necessary to go through this time and overcome these negative phenomena which, of course, will require a large amount of effort on the part of the people and the party. The difficulty is that we cannot take a break, a five-year plan for "recovery and recuperation," we must not let up. But even with all the shortcomings, painful phenomena and difficulties, we can look optimistically to the future. The June (1987) Plenum of the Party Central Committee adopted a clear-cut program for radical restructuring of economic management. But so far only the first steps have been taken. Because of the policy of reconstruction of industry we are gradually creating a material base necessary for providing for better indicators than what we have today.

COPYRIGHT: Izdatelstvo "Nauka", "Ekonomika i organizatsiya promyshlennogo proizvodstva", 1988

### Industry Directors Surveyed

18200176 Novosibirsk *EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA (EKO)* in Russian No 3, Mar 88  
(signed to press 29 Jan 88) pp 59-75

[Article by L. Shcherbakova, deputy chief of the Division for the Experience of Enterprises]

[Text] In order to reveal the collective opinion of production leaders about how restructuring is proceeding, the EKO division for experience of industrial enterprises conducted a survey. Participating in it were 120 directors from practically all branches of industry from the most diverse regions of the country. A certain part of our questionnaire repeated the one that was developed by Doctor of Economic Sciences, Professor R. G. Karagudov (the results of the questionnaire were published in 1970 in the first issue of our magazine). In 1984 (No 12) we conducted a second survey. By comparing these three questionnaires one can draw certain conclusions about how the importance of various conditions and indicators has changed in the evaluation of enterprise managers and how the questionnaires have changed in connection with the change in the economic situation (with the changeover to self-financing, for example, the role of profit and price increased). But certain situations, conversely, seem to have been "frozen" and this is also symptomatic.

And so the results of the latest questionnaire. It included several subjects.

### First Subject: The Influence of Decisions Made for Expanding the Independence of Industrial Enterprises

Question 1. Was the reduction of the number of centrally established indicators (from and to) appreciable?

The need to reduce these indicators was "legitimized" by special decree. But 80 percent of those questioned assert that they are not experiencing this reduction. There are attempts to increase a number of these indicators. "The demands are growing"; "I have not experienced any reductions but I have noticed that they have been 'redecorated': from major to secondary, but the overall number is the same"; "New calculation indicators have appeared and therefore the overall number has not changed"; "Nothing has changed either in basic or in auxiliary production"; "I am not experiencing this change: the indicators are changing all the time, not only for the various years, but also within a single year"; "The reduction of indicators was declared, but formally: the monitoring uses the previous number of them"; "Through the system of normatives all indicators have been retained, directive assignments have been restored, and there have been explanations as to how one is to understand one provision or another"; "The reduction is

not appreciable since Soviet and party agencies require the same old thing from us"; "Nothing has actually changed in bookkeeping with the exception of the monthly reports within the quarter"; "Instead of certain indicators they have begun to plan others."

Three percent of those questioned announced that the number of these indicators have increased. "The number of indicators for the products list is increasing. The number of indicators for technical and economic planning increased from 24 to 44"—this was one of the answers. About 15 percent of the managers indicated a significant reduction of centrally planned indicators. "The reduction is appreciable—up to 3 for each production." "Judge for yourself: there were 22 and now there are 10!"

This time we decided to approach the questionnaire somewhat differently and give a broader, more objective view. To this end our author Ye. A. Skoblikov, deputy general director for economics of the Penzavodprom PO conducted this same questionnaire at a plant seminar where 27 workers of this association were in attendance. Here and henceforth we shall give their opinion and the reader can draw his own conclusions. And so the opinion of the participants in the plant seminar: Yes, it is appreciable—3 people; No, it is not appreciable—20 people; No answer—4 people. One of the opinions: "If several directive indicators were actually reduced, they appeared among the calculated indicators for which there is just as much of a demand as there is for the fulfillment of directive indicators."

Question 2. In your view, how much has the petty supervision from higher agencies decreased?

The idea that no changes had taken place was discussed by 48 percent of those questions, who gave eloquent examples of this. In one questionnaire it was said that the ministry had introduced daily bookkeeping and there had been a sharp increase in the number and length of intercom conferences which have been turned into reprimand sessions. Sometimes the growing desire to keep a hold of the enterprises has shamefully been concealed under the guise of all kinds of recommendations which, you understand, are actually mandatory.

Forty-three percent of those participating in the questionnaire assert that the petty supervision has decreased, but insignificantly. And, of course, it is impossible to draw a conclusion as to whether this is a tendency which can lead to changes or a temporary easing off. This statement is typical: "Operational bookkeeping has increased and there is daily teletype and telephone monitoring."

This explanation of a certain decline in administrative zeal brings to mind sad reflections: "When changing over to the two-level system of management we lost our concrete link with the workers of the ministries responsible for solving concrete problems."

The two "extreme" opinions are interesting. The first: "Petty supervision has increased because of the desire of the higher agencies to prove through constant zeal that they are needed as a level of state management." The second is somewhat unexpected: "What kind of petty supervision can there be when during 1986-1987 we were placed under different supervision several times?! We do not even receive plain old attention."

And here are the results of the last (1984) questionnaire. At that time we asked the directors a question: "Can you note during the past 2-3 five-year plans a marked expansion of the economic independence of the enterprises and the rights of their directors?" The variants of the answers were as follows: Yes, I can—9 percent; No, I cannot—53 percent; Rather to the contrary—30 percent; and It is difficult to answer—8 percent.

The opinion of participants in the seminar of plant workers: Petty supervision has not decreased—26 people; It has increased—1. The overall conclusion: "Petty supervision is the main function of the higher agencies. And if the agency has remained and the number of workers has not decreased and they cannot work in any other way, then they have a simple understanding of restructuring—load the departmental organizations with additional work. To reduce them would mean to eliminate petty supervision as well."

Question 3. In what area, in your opinion, does one today especially feel the inadequacy of the rights of enterprise directors? The following variants of answers were suggested: production planning, volumes and products lists; capital construction; price setting; labor and wages.

Here, in our opinion, is where the new tendencies began to be manifested. Placed with a rigid framework because of the requirement produced high-quality products that correspond to the modern level of development of scientific and technical progress, managers of enterprises are increasingly experiencing the load of the unsuitable price-setting system. And the changeover to self-financing and self-recoupment of the majority of enterprises in the country when there are none participating in the experiment, which means that there are no privileges for them either, only intensifies this experience.

Here are some general statements: "We have no rights with respect to any one of these indicators, all we can do is send data and calculations to the ministry and it decides"; "There were practically no rights and there are none yet"; "Unfortunately the director has only duties"; "In all of the spheres, unfortunately, the directors have no rights—everything is decided from above right down to the smallest trivia"; "In all of these areas there are many prohibitions that impede our work. Many of them have also made their way into the new Law on the Socialist Enterprise."

Here is how the variants of the responses were distributed (one should take into account that on the majority of questionnaires there was not just one answer but two or more). Sixty-three percent of those questioned think the rights in the area of planning production are absolutely inadequate and this pertains especially to the products list (in 1984 61 percent of the respondents indicated this). Managers of enterprises write: "In the plan both with respect and with respect to the products list there are frequent changes without the agreement of the labor collective"; "The volume should be calculated for the capacities of the enterprise. The rates are not the right lever since it is necessary to work on product quality"; "It is necessary to coordinate the plan for the products list of items with the capabilities of production"; "Everywhere people are writing about consolidating deliveries to bases of territorial supply agencies but the ministry requires dispatch to a specific point, right down to stores and technical service stations."

The situation in the rest of the spheres of activity is evaluated approximately the same period. Thus the inadequacy of the rights in the area of capital construction was indicated in 46 percent of the responses (in 1984 it was 48 percent). The main problem here is known. At the EKO Directors' Club in Novosibirsk A. N. Shkulov, Hero of Socialist Labor, already spoke about the fact that the ban against expanding the enterprises led to a ban against constructing anything except for warehouses. Such jumping from one extreme to another, of course, is not justified (see "Restructuring: Quality and Time Periods," EKO, No 3, 1987).

Rights in the area of labor and wages are considered inadequate by 45 percent of those who responded (in 1984—65 percent). "The establishment of a limit on the wages of engineering and technical personnel in the overall fund of the enterprise is absolutely superfluous. It turns out that if an engineering and technical worker has developed a set of equipment that has made it possible to reduce the size of the group of workers, the author of the proposal is cut along with them! This is a long distance artillery attack from bureaucratism on restructuring"—it is written on one of the questionnaires. Enterprise managers have a large amount of confusion about one of the main principles on which the new rate system developed by the USSR State Committee for Labor and Social Problems is based. Since the wage fund is left at the same level when changing over to new rates and salaries, the advantages are received by those enterprises which previously took away a large part of the unionwide fund. This immediately placed the enterprises in unequal conditions (this was also discussed in the EKO Directors' Club in Novosibirsk).

There were the same number of responses concerning the expansion of rights in the area of price setting—44 percent (in 1984—3 percent).

Other spheres were also indicated where it is necessary to expand the rights of the management of the industrial enterprise: profit and its distribution; financial activity

and product sales; and the right to take a vote in the event of unqualified inspections. These were the responses: "Our rights are adequate, but we do not have enough of an opportunity to realize them, especially in capital construction"; "So far our rights are adequate, we must learn to utilize them intelligently and make it possible to apply them in practice."

The opinion of participants in the plant seminar: In the area of planning—8 people, price setting—5, labor and wages—5, in all of these spheres of activity—4 people.

Question 4. How frequently in the practice of your work do existing instructions and provisions (or at least part of them) stand in contradiction to considerations of economic expediency?

None of the people who filled out the questionnaire wrote about a positive situation in this sphere. Sixty-one percent of them noted that the instructions and provisions frequently stand in contradiction to economic expediency (in 1984 these answers comprised 57 percent); 28 percent—practically all the time (in 1984—14 percent). Only 11 percent indicated that this takes place rarely (in 1984—26 percent). The picture is clearly unfavorable. "The absolute majority of instructions that are in effect stand in contradiction to considerations of economic expediency and common sense," it is written in one questionnaire. Another participant in the questionnaire more or less continues this idea: "And this is natural since the instructions are written on the basis of their own experience which, as a rule, lags behind the rapidly changing real situation."

The opinion of participants in the plant seminar: Practically constantly—12 people, rarely—5, never—1, and 8 people did not answer.

Question 5. Has material and technical supply for the enterprise improved? The following variants of answers were suggested here: A significant improvement; There is improvement but it is inadequate; and There is no improvement and so far none can be foreseen.

It was no great surprise to the division that 18 percent of those who responded to the questionnaire unequivocally gave their own variant of the answer: It had deteriorated; It had deteriorated sharply. "It has deteriorated sharply," writes one of the enterprise managers, because of the failure by industry, especially the Ministry of the Electrical Equipment Industry, to fulfill the plan for the first quarter of 1987. "It is clear that each has his own supplier and therefore various ministries can be named. Of course state acceptance was also mentioned: "The introduction of state acceptance at supply enterprises unsettled things." Another consideration caused by the structural rearrangement: "The situation deteriorated because of the changeover of supply functions to the agroprom." "The situation deteriorated since they introduced proportional expenditure norms per 1 ton of



commodity output not according to the calculations of the enterprise but arbitrarily. There is the threat of shutting down the enterprise."

The idea that there are no improvements so far and that none are foreseen was indicated by 49 percent of those questioned. What is their reason for this lack of confidence in the future? Here are just two responses: "The Gossnab has done nothing to get away from centralized distribution of all resources or to extensively introduce wholesale trade"; "This question has been given the worst interpretation in the Law on the State Enterprise and it requires additional study and analysis. And for this time I think we should establish a moratorium on the existing ties of material and technical supply."

There are improvements but they are insufficient, assert 30 percent of those questioned. "We were among the first enterprises to change over to material and technical supply through wholesale trade and we felt a certain improvement," one of them justifies his answer. Does it turn out that the changeover to wholesale trade does not lead to significant improvements? But in one out of those 3 percent of the questionnaires that assert that significant changes have taken place in the matter of material and technical supply, the opposite is written: "We link the significant improvement to the fact that beginning on 1 January 1987 we have been working under the conditions of wholesale trade...." So what is going on here? Possibly it is a matter of the different levels of organization of this form of material and technical supply. But we think that the USSR Gossnab should give priority to straightening this out. The more since the "overall score" of this questionnaire—97:3—is not in its favor.

The opinion of participants in the plant seminar: Improved—4 people, improvement inadequate—6, not improved—14, did not answer—3 people.

Question 6. What characterizes the enterprise's relationship with Soviet and party agencies? Indicate their most typical feature.

First of all about something that surprised us: this was the only question which not everyone answered. They did not explain this but one of them placed his own question mark next to our question, perhaps doubting the propriety of such a question in general or perhaps doubting the magazine's right to ask it.

Let us say directly: 83 percent of those who responded were not satisfied with these relations. What is the main thing the business executives do not like? 45 percent of them wrote about the large, frequently even unbearable number of additional assignments for the enterprises: "The temporary assignments of workers away from the enterprises is as great as usual, which does not contribute to reducing the number of personnel"; "Relations are characterized by regular reassignments of people from the plant for various jobs"; "Most frequently soviet and

party agencies come to us if they need people to work in the city or in the country"; "Very many of them issue assignments that are not appropriate for the enterprise (agricultural work, construction, landscaping and so forth"; "Recently there have been fewer conferences but more people enlisted for patronage work"; "Permanent assignments without taking into account the capabilities of the enterprises under the conditions of self-financing"; "Interrelations are one-sided: We get a flow of instructions for allotting material and human resources for the outside and orders from the manufacture of metal items"; "Soviet agencies give assignments. We report to them. It is prohibited to even think about help"; "Party and soviet agencies load the enterprises with instructions but nobody finances them"; "Demands from the outside are increasing but our resources and capabilities are becoming less and less"; "With the publication of the Law on the Socialist Enterprise there was an increase in the number of decrees and decisions with additional assignments for construction and landscaping."

The problem of reassigning workers is much more serious than it seems at first glance. Thus in construction workers taken away from Novosibirsk earn from 10 to 30 rubles and in agricultural work—from 26 to 70 rubles. But where do they get the rest of the money? For which job are they registered? The additional assignments both on the financial plane and on the plane of labor-intensiveness have become so great that they influenced production in the most direct way. And now imagine that an enterprise is on cost accounting or self-financing....

Of the 83 who responded 38 percent consider the basic shortcoming of these relations to be too much control. As it was tactfully put by one of our correspondents, "Arbitrary decisions still exist." Others were more resolute: "As a rule they haul you on the carpet"; "They make arbitrary illegal decisions." The most typical features of these relations: "Unpredictable and peremptory demands on enterprises"; "Disadvantageous jurisdiction. Increased outlays"; "Very rigid and detailed control"; "Increased demands without accounting for the capabilities"; "What the local agencies need they will make sure they get"; "One-sided pressure by directives without assistance in implementing them"; "Abuse of power when solving such problems as 'taking bribes' when introducing housing and patronage assistance for agriculture"; "Rigid formalistic demand for the fulfillment of planning indicators and the same demand to restructure. Dictatorship in diverting resources"; "The same thing as before in terms of the number of office visits and conferences."

Certain questionnaires point out one of the reasons for the differences between industrial enterprises and soviet agencies on whose territories they are located. This is the lack of correspondence between the indicators for reporting which leads to a situation where the soviet agencies are asking the enterprises for more and more new information. This pertains to labor productivity

through normative net output, sales volume, and so forth. As was written in one of the questionnaires, "When considering the interrelations between the enterprises and the local party and soviet agencies it is necessary to coordinate branch and territorial planning."

The questionnaire shows that business executives are expecting from Soviet and party agencies a clear understanding of the processes and goals of restructuring but they do not always get this. Hence the statements based on the knowledge of the situation in their regions: "Not enough competence in the essence of the economic changes. Hence a formal but not always an essential increase in demandingness"; "Soviet and party agencies do not sufficiently understand or delve into the essence of restructuring. This is shown eloquently by the level of inquiries made during the process of restructuring"; "Party agencies perform mainly functions of control and not enough functions of organizers."

Among those questioned 6 percent wrote about the fact that relations with soviet and party agencies had become more businesslike and there was less petty supervision. "Relations have become more human and there is less of a dictatorship"; "Help from party agencies is noticeable, but these constant additional assignments..."; "Partnership relations based on mutual advantage are beginning to form with soviet agencies." The latter especially interested us and in one of the subsequent issues we shall try to discuss this experience.

The opinion of participants in the plant seminar: Did not answer—16. Those who answered evaluated these relations as follows: They are working jointly on implementing the decisions of the 27th Congress—1 person; party and soviet agencies have become another agency that demands unjustified bookkeeping—5; party and soviet agencies are under the thumb of the directors—1; administrative pressure has increased—1; relations are arranged according to the principle of "one hand washes the other"—1; and party and soviet agencies have not been restructured—2.

Question 7. Sometimes the opinion is expressed that while retaining directive assignments for enterprises (regardless of their number) any steps directed toward consolidating their economic activity will inevitably be of a formal nature. Do you agree with this?

Seventy percent of those questioned answered this question in the affirmative: "Yes, I agree. Otherwise independence is turned into a game"; "I quite agree. It is impossible to combine the uncombinable"; "That is quite reasonable. The higher-ups (economic) will not turn over their power. They tie the hands of the lower levels (enterprises) with normatives"; "An example is the fact that the normative deductions that are imposed on us now do not stimulate the development of the plants' collectives."

Thirty percent of those questioned did not agree with this assertion and think that it is necessary to have a partial rejection of directive assignments: "A directive indicator is only a guide to action"; "Directive assignments can successfully comprise up to 75 percent of the volume"; "I am not against directive assignments but there should not be many of them! And it would be desirable for them to be permanent for the five-year plan"; "I do not fully corroborate this thesis; with reasonable persistence it is possible to achieve independence even when there is a certain amount of directive planning"; "For enterprises participating in solving national economic problems it is impossible to do without directive instructions. But this should not deprive them of their independence."

It would seem that this kind of difference of opinion depends on the branch to which those responding to the question belong. One recalls the words of Professor R. G. Karagedov at one of the meetings of the Directors' Club to the effect that we are simultaneously trying to expand independence and retain centralization, which in and of itself is impossible. One can be accomplished only at the expense of the other.

In a questionnaire of 1984 96 percent of those who responded were in favor of an essential expansion of the economic activity of the enterprise and 4 percent partially supported this. This was considered to be the key problem or one of the central problems by 89 percent of those questioned. There was more unanimity at that time. But apparently the first results of this "expansion" and a certain amount of confusion that was observed in economic practice sobered some of these people up. Independence that is now reinforced by practical steps can have a painful effect on the enterprise.

Conclusions. 1. The need for restructuring is recognized but its goals and the means of achieving it have not yet become a guide to action for many people. The fact that this understanding is frequently lacking in party and soviet agencies has a fatal effect on practice. Readers also pointed out objective obstacles: reports are required from territorial agencies in the old volumes and the information can be gathered only at the enterprises. Hence an additional load for personnel of the enterprises. Control reaching the point of a dictatorship is the basic method of interacting with the enterprise.

2. The general appeal for more active work and expansion of socialist enterprisingness have led to more frequent conflicts with the outdated economic law. It is apparently necessary to bring these things into line as well.

3. Many departments, not wanting to let go of the real authority and, apparently, not having sufficient potential for work under the new conditions, have also changed over to detailed supervision of the management of enterprises. This diverts them from solving long-range and other problems that are important for the enterprise.

4. Practical workers were nonetheless the first to feel the need for restructuring—hence their understanding of problems of price setting. Now it does not motivate an output of principally new, less labor-intensive or material-intensive products). The declared changeover to self-financing increased the interest in the economic results of the activity of the enterprise.

#### **Second Subject: The Influence of Decisions Made Recently on Increasing Production Effectiveness**

Question 1. Has the introduction of the achievements of scientific and technical progress accelerated at your enterprise?

Fifty-one percent of those questioned answered that acceleration at their enterprise was insignificant, 27 percent said that it had not taken place at all, and 2 percent said that the situation had even deteriorated. But at the same time those who answered the questions on the questionnaire were mainly managers of fairly good enterprises and in a number of cases leading ones. Why such pessimistic evaluations? "So far many decisions are declarative and do not work for acceleration of the introduction of scientific and technical progress"; "The reason is centralized supply and the long path traveled by the documents, especially for capital construction"; "Control and accountability for the introduction of scientific and technical progress have increased but assistance from above has not increased"; "Acceleration is impeded by higher executive agencies and the large number of instructions." Many enterprise managers blame the shortage of equipment. This is a painful issue. Indeed, it is impossible to make good products on poor machinery. But machine tool building, which has been given priority in development, is not yet giving the country good equipment. "Significant acceleration of scientific and technical progress can take place in our case with reconstruction and the acquisition of new equipment"; "Progressive new equipment is not being allotted"; "The acceleration is not significant since we do not have the necessary automated equipment"; "The situation has deteriorated because only one unit of equipment has been allotted in keeping with the plan for technical reequipment." And, finally, there was this statement: "It is still too early to expect appreciable results. I do not expect this to happen until the end of the 12th Five-Year Plan."

Indeed it is too early to expect radical changes but certain changes on a "cosmetic" order, to be sure, are already in evidence. Thus in one of the questionnaires it was pointed out that "the lower levels are considerably more active in things having to do with cost-accounting indicators."

The opinion of participants in the plant seminar: It had increased insignificantly—two people, there had been no acceleration—15, and 10 people did not answer. The opinion of one of the participants: "Until the enterprise gains real independence there will be no acceleration of

scientific and technical progress. Indeed, if the activity of the director is evaluated basically in terms of percentages of the fulfillment of the plan sent down from above, then why should he have progress? That would just mean extra troubles and a loss of benefits."

Question 2. How are processes related to the restructuring reflected in the work of your enterprise?

For an answer we were given a table whose figures we were asked to translate into percentages of the amount planned for 1984 through the first quarter of 1987. They gave indicators with which one could characterize the internal and external effectiveness of the work: labor productivity, the fulfillment of deliveries under agreements, production costs, profit, and quality indicators. The tables that were received confirm the responses to the preceding questions of the questionnaire. First, the absolute majority of enterprises have been working stably since 1984. We did not observe any increase in indicators during the period of 1986 through the first quarter of 1987. Moreover, fully in keeping with the data of the USSR State Committee for Statistics, at the beginning of 1987 many of them were operating worse than they were in the preceding year.

The opinion of one of the participants in the plant seminar: "Our indicators are good. The economic services made its contribution to their achievement. But...this is mainly the result of the gross output approach. For the 8th year we have been producing enameled pipes for the needs of land reclamation and they are all experimental batches; we have not reached series production. The pipes themselves can stay in the ground for no less than 70 years but they are joined together with conventional welding and, consequently, instead of the advantage produced by the high level of durability of our pipes we cause harm which is multiplied as the output of these pipes increases. This year we shall introduce the second section of a plant for enameled pipes. But the problem of the "joints" has still not been solved. Our association does not have its own science, and the ministry that is called upon to move scientific and technical progress ("unity of technical policy") is solving this problem sporadically—who has not worked with our pipes! On the outside everything looks fine, the indicators are growing, the bonuses are coming in, and we are receiving banners in the all-union competition. And we, the first in the world to begin to produce enameled pipes, will apparently soon be receiving technology for their production abroad. This situation is also advantageous to science with whom we are working: each subdivision is responsible for its subject but nobody is responsible just for this area as a whole in technical equipment and technology."

Question 3. How do you evaluate the degree of influence of restructuring on the improvement of the work of the enterprise?

Thirty-nine percent of those questioned wrote that the influence was moderate; 26 percent—insignificant; 4 percent—that it had had no effect at all on the work of the enterprise. Eleven percent of those questioned recognized it as significant.

Here are a couple of opinions: "The influence of the restructuring is insignificant so far. Our positive changes have been obtained within the framework of the scientific and technical committee with the active application of elements of cost accounting"; "So far it is insignificant and what there is is only from the human factor"; "If such influence exists it is only as a result of the enthusiasm that is associated with good political decisions and is still temporary in nature"; "This has not yet been reflected at our enterprise. We worked effectively even before (for 10 years now)."

And here is what was written by people who think that there is a certain (moderate, as was noted in the questionnaires) influence of restructuring: "It would have been significant if there had also been a restructuring in the economic management agencies"; "Many enterprises received a good impetus under the conditions of the experiment, but many of these conditions have been changed. The volumes are established by arbitrary decisions and are not coordinated with the products list. There is again a uniform breakdown according to months and this sometimes impedes the fulfillment of export orders and orders for new technical equipment."

And in conclusion one more statement: "From the results of 1 or 2 years it is difficult (and even impossible) to draw far-reaching conclusions. Time will tell." All this is true, but time not only passes, it also goes away for good.

The opinion of participants in the plant seminar: One feels the influence of the restructuring on the operation of the enterprise—15 people, It is insignificant—1, It does not exist—7, and No answer—4. One of the opinions: "Many questions of improving economic life has begun to be resolved more rapidly but there are many more unsolved problems. The main thing is that the party and soviet agencies are in no hurry to restructure and are supporting their restructuring only in words. We have very many people who are in favor of the restructuring not only with their minds but with their hearts, and they are not only not promoted but sometimes are openly persecuted or impeded in all ways."

Conclusions: The restructuring has not yet led to any radical changes in the core of production: product quality. Although there is a certain amount of progress related to the introduction of state receiving. But perhaps the situation could not have changed radically yet. After all, the quality of modern products depends to a great degree on equipment, and so far it has been impossible to make changes in technical reequipment and reconstruction. They do not have progressive modern equipment. From all that has been said the questions

follow: But what is the situation in machine tool building anyway? Is the branch now taking the correct path? At one time EKO published program materials on this subject. Apparently the time has come to return to them, but in a new economic vein.

### **Third Subject: The Course of Restructuring the Economic Mechanism**

Question 1. Do you think that the measures taken since the 27th CPSU Congress for restructuring the economic mechanism has been sufficient for realizing the assignments set by the congress for a radical reform in this area?

Sixty-five percent of those questions think that these measures are inadequate. In what areas? Material and technical supply is indicated; the allotment of equipment (the office probably has in mind the lack of direct ties between the supplier and the consumer and the market for the equipment); the credit-financial system; price setting; planning (in particular the balance of plans and the rejection of commodity output as the main indicator and of normative net output as the indicator used when determining labor productivity and deductions for social, cultural, and domestic purposes); the lack of personal interest of the workers and other categories of people employed in restructuring; the excessive abundance (our correspondents think that the number must be cut in half) of ministries, committees, main administrations, regular administrations, and trusts. And as a result—this remark: "The measures that are being applied do not yet affect the deep processes."

"The measures are inadequate. We need an in-depth study of the situation at enterprises of the branches. And only by taking into account the opinions of the leading collectives will it be possible to find the points which will help to solve the problems advanced by the 27th CPSU Congress"; "It is necessary to attentively review the normatives of each enterprise since all of those that are operating well are now being placed in worse conditions." These examples are very widespread now. They were also discussed in the Novosibirsk EKO Directors' Club. One is especially struck by examples of encroaching on the leading collectives against the background of the conversations concerning social justice.

And there are also the opinions of the managers: "The restructuring should have affected the planning process first of all. This was not done. Everything else is piled into a heap—you figure it out for yourself, they say"; "The measures are half-measures, they are not decisive, and they are frequently contradictory and marked by the stamp of a fear of giving the required freedom to the enterprises. Two lines constantly coexist: one based on the latest half-hearted decisions and the lines where the application of old principles in new packaging"; "Even measures adopted for implementation are carried out with delays. The decisions are distorted by the ministries and local agencies"; "The measures are inadequate since

the restrictions on their actual fulfillment (decrees, provisions, instructions, orders, methodological guidelines) nullify the idea of a radical reform"; "We need a great deal more both in the organization of the restructuring and in personnel work"; "So far there are only discussions of restructuring"; "I think that so far we have only discussions. There are no essential measures yet and I think that the time periods are inadequate for such a large amount of work"; "I think that the measures are inadequate. Even if they were more energetic and effective, the result would not come until the more distant future, at least 4-5 years. It might take one or two generations. Of course it is important to work for the future which will make it possible to develop a different attitude toward labor and public property. And it will take more than 4-5 years to get rid of the negative "accumulations" of the generation which today is bearing the main labor load (passivity, inertia, and indifference in a fairly large group of people). But there are also less global goals that pertain to effective management. Here the first appreciable results should be achieved even between the 12th and 13th five-year plans.

Thirty-five percent of those questioned assert that sufficient measures have been proposed for restructuring the economic mechanism. Many assert that "the steps are correct but it is necessary to work much more" both when developing decisions and when accepting them and applying them in life. "The measures are adequate in the first stage, but during the process of further work, with the change in the situation and circumstances, something else will be needed. Life does not stand still"; "The restructuring has encompassed all spheres of activity and all agencies for planning, control and management of the national economy. Therefore the decisions that have been adopted are adequate. The problem is in their implementation"; "I think that we need accelerated implementation of them"; "If everything that was adopted at the 27th CPSU Congress and subsequent plenums were completely implemented, I think the measures would be adequate."

The question presents itself: Where does this lack of confidence come from? Understandably, it is generated by past experience. But is this experience not really the "past"? Here are certain answers to this question: The measures are adequate but they must be introduced more rapidly, and updated instructions that restrict the independence of enterprises must be abolished more rapidly"; "I think that the measures are adequate if the ministries are given more responsibility for unconditional and complete fulfillment of the decisions that have been made"; "Yes—if they are unwaveringly fulfilled"; "Yes, only the decisions and the law on the enterprise must be implemented"; plus it is necessary for the principles that have been advanced to be confirmed by methodological and normative documents. So far the 12th Five-Year Plan has departed from the scientific approach to calculating economic normatives"; "Central department (Gossnab, Ministry of Finance, State Committee for Labor and Social Problems, Srobybank, Gosbank) are in no hurry to revise the restrictions"; "The

decrees are constantly being violated by the higher agencies"; "They must be consistently implemented at the level of the ministries." And, finally: "In the higher departments a restructuring is bogged down in paperwork and conversations about it, even though below at the enterprises there are threatening demands for restructuring that are not reinforced by concrete practical work."

The opinion of participants in the plan conference: The efforts that have been undertaken are adequate—14 people, Not altogether—2, Inadequate—10, Did not answer—1. One of the opinions: "Yes, a good deal positive has been said and this inspires hope. But the practical implementation of the decrees is very unsatisfactory. The reason is mainly that the previously issued instructions continue to be in effect and the majority of the apparatus has not yet adopted new provisions and continues through inertia to act and apply outdated (even abolish) instructions because they know them and they do not understand the new ones. And many of the staff do not wish to understand, developing a "creeping" sabotage of restructuring.

"In my opinion if a new decree is introduced concerning payment for labor all other legislative acts concerning payment for labor should be immediately abolished, if wholesale trade is introduced all funding should be abolished, and so forth. During this period everyone should be guided by the decree on the basis of its spirit and the new normative acts which ensue from it should be published during the course of the restructuring. The main thing that will be achieved here this way is that the old instructions will not be an impediment to the restructuring."

Question 2. How do you understand the point about the radical reform of the economic mechanism: Does this mean rejecting the principles of directive planning, funded supply and centralized price setting or at least one of them?

Seventy-nine percent think that the abolition of these three principles or at least one of them is necessary. An especially large number of statements of this kind pertain to directive planning. But still there is no unanimity here. Some people assert that it is not necessary to have directive planning at all but one cannot do without centralized price setting, others think that it is necessary to have directive planning for 5-7 years.... The opinion about the need to change over to wholesale trade and direct ties in material and technical supply is closer to unanimous.

Ten percent were against abolishing these principles and the rest answered evasively: depending on the circumstances, branch, and so forth.



Considerations of opponents of abolishing these principles are especially interesting. "The reform of the economic mechanism should envision a reasonable combination of centralized (directive) and decentralized principles of management of the national economy"; "It is impossible to refrain from the aforementioned principles but the plans should be drawn up taking into account the opinions of the enterprises"; "I do not think that we are ready to 'abolish' centralization. We do not have enough resources or production capacities either"; "We should not reject these principles. It is necessary to sharply limit the number of planned indicators (to 1-3) and centrally establish prices. The funds should be allotted in keeping with the production program."

The opinion of participants in the plant seminar: Require rejection—7 people, retain some of the directive indicators—1, It is not necessary to refrain from the directive principle—12, Did not answer—7. One of the opinions: "As became clear during the course of the concluding session, those who are in favor of directive planning simply cannot conceive their existence in any other way. This is the psychology that must be broken, we must break the self-awareness of the 'cog,' the 'performer' who over long years has become unaccustomed to thinking independently and solving those problems which he must solve on the basis of his position as a master of production."

This shows that certain managers are not ready for independence.

As you can see, there is a great diversity of opinions. But it seems that any management mechanism should be logical and integrated. It is impossible to simultaneously expand independence and strengthen centralization. But at the juncture of these principles, it seems, is where the progressive solutions are to be found.

In conclusion we suggested singling out the most important, crucial issues, regardless of the subject of the questionnaire. Here they are:

"An absolutely incorrect principle for distributing profit is included in the system: one—the budget; two—according to the normative for the ministry; three—the rest for the enterprise."

"The provision of construction and installation work for social, cultural, and domestic facilities is very poor."

"At the Gosagroprom they have essentially not yet begun to expand the rights of industrial enterprises."

"We talk a great deal about the rights of the enterprise and its capabilities, but in reality they are formal and it is frequently impossible to apply them anywhere."

"Each city should create a training center and instruct all managers in issues of management on the basis of computers."

"There is no accounting for the base of the enterprise and the prospects for its development when determining the normatives."

"The State Committee for Labor and Social Problems has not yet abolished and, it would seem, does not intend to abolish the standard plans and structures, which impedes the independence of enterprises when placing engineering and technical personnel."

"There are no new provisions concerning the scientific production association. The old ones are unsuitable since they envision a mechanical association of the structural subdivisions included in it."

"The contradictions between the acceleration of rates and the provision of automated equipment are being aggravated."

"There are artificial barriers to avoid giving the enterprise what it has coming and what it has earned."

"It is necessary to have long-range plans for technical reequipment of branches of the national economy and it is necessary to know what one must reach in the future and what analogue to use as a basis."

"The role of wholesale trade fairs has not increased in light industry. And they themselves do not fulfill their purpose."

"In capital construction the enterprises have funds and construction capacities. But the issuance of planning estimates is limited. This impedes the initiative of the enterprise."

"The law on the enterprise is largely directive in nature. It still contains many restrictions and this leads to the idea that once again form is replacing content."

"So far there have been many words. Are we not trying to build a basis on criticism alone? Perhaps it would be expedient to concentrate efforts and our major intention on solving the key problems in the development of the economy?"

The readers suggest that the magazine EKO "elucidate not only the problems of this subject but also the experience of the enterprises." Well, the section on the experience of enterprises fully supports this suggestion and will try to follow it as much as it can. And another suggestion: "The Directors' Club should prepare proposals for the USSR Council of Ministers and the USSR Gosplan." So far we are using the magazine as a tribunal, but there is undoubtedly a grain of reason in this suggestion.

The division thanks everyone who has responded to our questionnaire and will keep in touch with them.

COPYRIGHT: Izdatelstvo "Nauka", "Ekonomika i organizatsiya promyshlennogo proizvodstva", 1988

**Association Director on Contradictions**

18200176 Novosibirsk *EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA (EKO)* in Russian No 3, Mar 88  
(signed to press 29 Jan 88) pp 75-78

[Article by V. S. Mamontov, general director of the Severyanka Sewing Production Association: "Paradoxes of Restructuring"]

[Text] The general situation in the country, which has become more complicated because of the reduction of the sale of alcoholic beverages, sets an especially difficult task for the country's light industry: it is necessary to rapidly saturate the domestic market with goods for the people. So the tasks of restructuring are doubly significant for enterprises of our branch. Today we are capable of producing the highest quality of products oriented toward raw material that exists in the Soviet Union. But because of the deepening of restructuring our problems also become deeper and a whole number of paradoxes arise. I shall discuss only a couple of them.

The first paradox. The lack of an analytical approach to combining volumes and product quality. Our association is one of a limited number of sewing enterprises in the country that have begun technical reequipment with the participation of firms from capitalist countries. From the very beginning we saw that the ministry had planned unrealistic time normatives. For example, for sewing a skirt they "allotted" about 17 minutes, and a dress—42 minutes. The plan was drawn up on the basis of these figures. Is this correct today when we have the task of "dressing the dressed"? When the shelves of the stores are loaded with goods for which there is no demand? Probably under these conditions the quantity of products produced should not be a goal in itself. Otherwise we will have to mark down the dresses like the footwear, which we gradually began doing about 10 years in advance. In response to our questions representatives of foreign firms said that it is possible to sew a skirt in that amount of time but it would be more like a bag than a skirt, and you cannot produce competitive items with these normatives.

I think it is also clear to everyone what this means for the enterprise. Having excellent equipment we will still not be able to reach the planned volumes. In the sewing industry the cost of raw material comprises about 90 percent of the production cost of the item. Today producing fashionable items that are in great demand we note that time expenditures per 1 ruble of commodity output are increasing disproportionately and the normatives of the cost of processing are not high even when

producing dresses of the fifth (highest) degree of difficulty. In world practice the situation is different: the proportion of raw material and the cost of the item is considerably less and therefore the material incentive for the workers increases.

The second paradox. Thoughtless undermining of production capacities and the lack of specialization in reality.

I shall try to explain about this. Technical reequipment is undoubtedly an important factor in increasing labor productivity. But in the foreseeable future it will not be carried out everywhere in a realistic well-thought-out way if only because there is not enough equipment. But a good deal can be achieved with efficient operation of already existing equipment, above all through deepening specialization. This is not a new subject and possibly it is simply a truism, but what is one to do when in light industry it remains only a "maxim" that has almost no effect on practice.

In the Soviet Union each year more than 100,000 models of sewn items are produced by enterprises of the Ministry of Light Industry. Each enterprise operates in some particular region. In Novosibirsk and the oblast, for example, no more than 1,000 models are sold. Therefore the level of series production is low. There are never more than 3,000 items in a single series, and for the Moda store we sew 200-300 units of items of a single series. Our association, for example, annually produces 400 models in five heights and three widths and 10-12 designs. If one multiplies all this the figure turns out to be impressive. But trade shakes its finger at us and uses power methods demanding that we increase series production even more.

It is difficult for the enterprise to produce such a range of items. With each readjustment we lose about 15 percent of the output. Consequently, just as a result of increasing series production of items. Each year we could obtain about 10 percent more output (5-6 million rubles).

An apparent contradiction arises: it is impossible to dress all people in the same clothing. To be sure, this is inadmissible. But it is possible on the scale of the country to ship products from one specialized enterprise to another. The cost of travel of one container used in our association for shipping over 1,000 kilometers is 14 rubles. To ship all of our products would take 10-15 containers, which would cost no more than 300,000 rubles, even taking into account all possible additional expenditures. I do not think that this would be fatal for the railroad either. But at the same time in our city we would sell not 1,000 but 10,000 kinds of items, each different from the other, and the enterprises of the sewing branch would have a great economic advantage (now we must pay 700,000 rubles a year to the House of Fashions alone) and the utilization of fixed capital would be more effective. Then we could also sharply increase



the motivation of our fashion designers. I think that about 10-15 years ago we took the wrong course here, which led to a dispersion of fixed capital.

But here is one nuance: for a long time we have been working with the same suppliers and we do not have the possibility of changing them, regardless of all the restructuring. They change their assortment by only about 10-15 percent a year. Their monotonous fabrics end up in our monotonous designs. In order to vary the collection which is made of fabrics that are the same from year to year and to satisfy the same market with it, we make the designs more complicated. We literally cut the fabric into strips and put it back together with great labor expenditures. And who needs this? Excessive frills are not in fashion and are not even in fitting with our very style of life.

The third paradox is somewhat unexpected. Our association is among the four sewing associations of the RSFSR (and the only one east of the Urals) that changed over to state acceptance on 1 January 1987. We are completely in favor of this measure. It was necessary to place stricter demands on product quality. Today, because of state acceptance, we have opened our eyes to things which we had not noticed and are now correcting.

But here is what bothers us. Labor productivity has decreased sharply. State acceptance has become a serious psychological barrier in our work. Even our pride and joy, our leading workers, who always work wonderfully and well, seem to have forgotten how and their output has decreased. And there is no reason for this: from the very beginning we have submitted and continue to submit 90-94 percent of our products to state acceptance at the first request.

What has had such an effect on the people? The fear of harsh material sanctions for poor-quality products? The fear of shame? The very fact of having products returned also has a significant psychological effect on the worker. The reduction of output by our "guiding lights" by approximately half cannot but disturb us although we understand that this is a temporary matter caused by the period of adaptation.

And the second aspect. State acceptance has "hit" us in another vulnerable place: today everyone wants to work according to the rules. The technicians and mechanics refuse to provide for additional work places and even controllers from the division of technical control refuse to inspect "above-plan" batches of products, referring to the fact that everything that is done in excess of the norm is done, as a rule, with poor quality. And we agree with them in spite of all our difficulties because of this. We need regulated labor. It is impossible to exceed the regular amount without affecting quality. People want to work in a regulated way. If a worker needs 10 seconds to tuck in a fabric she wants to use these 10 seconds for this operation. No more and no less, but precisely 10 seconds.

But here is something to think about: Is there a basis for working in such a way as to approach work efficiently and strictly? No, unfortunately. And when will there be one? The next aspect related to state acceptance could be called mixed if it were not fairly unpleasant for us. In December 1986 we sent our suppliers letters notifying them that beginning on 1 January 1987 we would be changing over to the new conditions and therefore ask them to deliver us the raw material that would satisfy us. As a result, at the beginning of 1987 we were left without any raw material and the plan for January was not fulfilled because of this. This was the answer to our telephone calls and telegrams: we are selecting good raw material for you. And we will hardly be able to purchase any raw material at all for 1988. I think that in order for the raw material branches to take themselves in hand and restructure it is necessary to introduce state acceptance everywhere. Otherwise the people will leave us and go to other sewing enterprises of the city where there is always raw material and this means that the work is regular and they have none of the requirements we have.

COPYRIGHT: Izdatelstvo "Nauka", "Ekonomika i organizatsiya promyshlennogo proizvodstva", 1988

11772

**Production Association Success Examined**  
*18200156a Moscow EKONOMICHESKAYA GAZETA*  
*in Russian No 17, Apr 88 p 6*

[Article by M. Turayeva, economist of the Saran Production Association "Elektrovypryamitel": "Less Outgo—More Income"; first 2 paragraphs are EKONOMICHESKAYA GAZETA introduction]

[Text] Working under the new economic conditions, the collective of the Saran Production Association "Elektrovypryamitel" has in 1 year increased the volume of production by more than 8 percent. At the same time, stocks of, say, ferrous metal remained the same, and there was no overall increase in electric power consumption. What contributed to the success? What incentives are being used at the enterprise to motivate thrift in the use of resources? M. Turayeva, the association's economist, tells about this.

Economical use of resources has extremely great importance for our enterprise, and we are operating under the second model of full cost accounting (khozraschet). Judge for yourself: supplies, electric power, heat, and fuel represent almost two-thirds of the production cost of our output. Their economical use, reduction of the specific consumption per unit output of products, is a constant and at the same time very appreciable source for the growth of profit. And that additional profit ultimately means more apartments, discounted trips to sanatoriums and rest homes, higher remuneration of labor, and other benefits.

This is natural since we have striven to orient the entire mechanism within our economic entity toward reduction of physical inputs in the production of products in order to stimulate interest on the part of the collective in thrifty consumption of metal, electric power, steam, water, and so on. Results have already been forthcoming from the operation of these incentives. The additional output of rectifiers and consumer goods is being achieved to an ever greater degree thanks to resource conservation. Now 60-70 percent of the growth of production is on the average being covered with resources which have been saved. And we are setting ourselves the task of improving even that result in coming years.

Under the new conditions we budgeted physical and equivalent imports for the first time all the way down to basic and auxiliary shops, technical and commercial services, and plant management (a process which they took part in, of course). The budget was determined on the basis of rigid but realistic standard allowances

worked out by the association's specialists and also to take into account the strenuousness of the base indicators in the various units. In short, we tried to get away from leveling, to work it out so that those collectives which make the greatest contribution to the enterprise's cost-accounting income stand to gain the most.

How in practical terms do we determine the cost-accounting income of the shop or other subdivision adjusted for rates of consumption of metal, electric power, and other resources? In principle, according to the same scheme as in the association as a whole, just adjusted to the lower level. First, gross income is calculated as the value of the output of products (or work performed) accepted by the OTK and state acceptance and delivered to the warehouse. Deductions are made from the total value of output for material costs, depreciation, social insurance, plantwide expenses, and non-production expenses. Internal plant prices worked out by the plant laboratory for technical-and-economic research on the basis of standard allowances have been established in our association for the entire list of products.

Distribution of Cost-Accounting Income by Shops of the Enterprise in 1988 (thousands of rubles)

	Gross Income	Charge on Fixed and Working Capital	Charge for Labor Resources	Cost-Accounting Income	Fund for Social Development	Fund for Remuneration of Labor
Shop No 1	2837.1	429	254	2154.1	42.2	2111.9
Preparatory production operation	3668.6	435	270	2963.6	58.1	2905.5
Shop No 4	1779.3	201	162	1416.3	27.8	1388.5
Shop No 5	2703.4	196	231	2276.4	44.6	2231.8
Etc.						

The charge on productive assets and labor resources is paid out of gross income. The remainder represents the shop's cost-accounting income. It is used to form two funds—the fund for remuneration of labor and the fund for social development (the latter, by our established rule, represents 2 percent of the fund for remuneration of labor). That portion of the shop fund for social development which is earmarked for housing construction is centralized. The rest goes to pay for subsidized travel vouchers, various loans, and so on.

Cost-accounting income is determined even in the technical subdivisions. Here they form their own funds for the team of designers, production engineers.

The saving on resources has the most direct impact on the level of the shop's cost-accounting income. Here is an example. In the first 2 months of 1988 Shop No 1 was credited 58,800 rubles for the saving on supplies and energy resources. Out of that, 34,400 were transferred to the association and 24,400 remained with the collective and became part of its income. This is over and above the money received for the planned conservation of resources.

We will be frank: today the cost-fighting mechanism is still not working to the full extent. Inertia, the habit of

ordering more of everything, is still felt in certain managers. Of course, there was a specific explanation for that kind of caution in the interruptions of supply, which were not exactly uncommon. But another explanation just as important, if not more important, is still the insufficient realization of the essence of the changes in economic conditions. That means that we still have a great deal to do, we must raise the level of educational work, and we must teach people to do business in a new way. It is especially important to take proper note and to evaluate wasteful people so that everyone can hear and others can learn from their example. We have many such people.

Among those who are thrifty not because they were told to be so, but on the basis of conscience I would like to mention the collective headed by foreman and brigade leader Liliya Aleksandrovna Chuprikova, which is innovative in spirit. By rearranging the production line for cutting nonferrous metals, they reduced scrap to between one-third and one-half and achieved a corresponding increase in the finished workpieces obtained. The high level of awareness of the members of this brigade is also indicated by this datum: when the disaster at Chernobyl occurred, the workers credited a sizable share of their reward for saving on rolled products to repair the damage from the accident.

Here is something else I would like to mention. The procedure for allocating allowances for basic supplies to shops, sections, and wherever possible to brigades has also been aimed at conservation and thrift. Now strict records are kept on all resources so as to be able to see quickly, every day, who has received and consumed how much of what, and what reserve remains. Incidentally, I would note that the subdivision pays with its own income for above-allowance stocks of goods and supplies. Here again the collective has the right to complain to its management and to hold it strictly accountable for mismanagement.

There is yet another important problem: how to motivate the technical services to reduce the metal intensiveness and energy intensiveness per unit product. It is clear after all that the consumption of rolled products, plastics, all kinds of raw materials, and electric power depends to no small degree on the creative inventiveness of designers and process engineers.

In our association the technical services have decided to save 500 kg of silver, about 9 tons of molybdenum, and many other metals this year. Deductions at an established rate of the value of material saved will go into the funds of collectives of designers and process engineers for social welfare purposes and additional remuneration of labor.

We expect the headquarters of the branch and Gosplan authorities to be very concerned about reliable and uninterrupted supply of production. But the way to use the materials allocated for the greatest gain for the enterprise and the state is the task of the collective and of its engineering and economic services.

But the ministry still cannot give up the arbitrary issuing of orders it has been used to. USSR Minelektrotekhprom has issued us a command for next year to save about 11 percent on nonferrous metals, which is out of line with our reference figures.

But even without the ministry we have a perfect understanding of the truth that inventories can be expensive in the context of self-financing. But why restrict our independence, interfere unnecessarily, and assign invented figures and targets?

07045

#### **Gosplan Official Interviewed on Contract Extension Process**

18200156b Moscow *EKONOMICHESKAYA GAZETA*  
in Russian No 18, Apr 88 p 9

[Interview with Yuriy Petrovich Boyev, first deputy chairman of USSR Gosplan, by Yu. Yakutin, based on readers' questions: "The Delivery Contract"]

[Text] The smooth and organized conduct of the effort to conclude economic contracts in 1987 guaranteed stable and uninterrupted supply of many of the country's

enterprises from the beginning of the current year. Economic contracts cover today more than 90 percent of the entire annual volume of delivery of products for production and technical purposes handled through USSR Gosplan and are making it possible for cost-accounting units in the economy to organize a well-adjusted and continuous production process and to make fuller use in their activity of the broad rights extended by the Law on the State Enterprise.

That is why the effort to conclude economic contracts, beginning in April 1988, should also be viewed as an exceedingly important condition for efficient supply to consumers of raw materials, supplies, equipment, and other physical and technical resources in 1989 and 1990, as a condition for successful cost-accounting activity of enterprises on the principles of self-support and self-financing.

How is the life of a contract extended? What does an enterprise do if one of its partners in current economic relations refuses to conclude a new contract?

These questions are disturbing today to many managers in the economy, economists, and personnel of entities for material and technical supply. In their letters to the editors they have been asking us to reveal more fully the content of the recommendations on methods for extending the life of contracts for delivery of products for production and technical purposes in 1989 and 1990, which have been drafted by Gosplan and USSR Gosarbitrazh, and have been asking how conclusion of economic contracts under the new conditions can be guaranteed?

Yu. Boyev, first deputy chairman of USSR Gosplan, answers the letters from readers.

[Question] Yuriy Petrovich, the questions that probably occur more frequently than any others in the mail received by the editors are about who has priority in conclusion of contracts, who is supposed to take the initiative, and what is the procedure for extending them?

[Answer] Extension of contracts can be initiated either by the consumer enterprise or by the supplier. But usually the initiative comes from the consumer.

Today the consumer enterprise merely determines the requirement of resources it needs. In the regional material and technical supply entity it details the list of products to be delivered to it centrally on the basis of the state order. There it also details the list of products to be handled on the basis of direct orders through the procedure of wholesale trade, and these are not covered by allotments.

It is then that the enterprise decides on the need to extend the life of particular contracts. If particular products have been omitted from the state order and their supply will be based on orders not covered by

allocations, then the customer is motivated to preserve the existing relations, and he must, of course, get together with the manufacturer and detail the procedure for delivery of his product. When the life of the contract is extended for 1989 and 1990, they make the necessary changes in it.

[Question] What documents serve as the basis for extension of the life of contracts?

[Answer] On the whole, this is done according to the same procedure as for concluding or amending a contract pursuant to the now-current Regulation on Deliveries of Products for Production and Technical Purposes. Disputes arising in connection with contract extension are presented to arbitration. But before the partners take the dispute to arbitration, they should in my view take additional steps to settle possible disagreements on their own, and if necessary call in their branch ministry to solve them.

[Question] Can all contracts be extended?

[Answer] The extension of contracts pertains mainly to deliveries of products manufactured and consumed on a stable basis. There is, of course, no need to extend a contract for a one-time acquisition of machines and equipment.

In 1988, a ministry, which figured as the disbursing entity, received allocations of five machine tools, distributed them among five enterprises, and they went on to conclude contracts for delivery with the manufacturer. In this case the question would not arise of extending the contract, since allocations for these machine tools in 1989 would most probably be distributed among other consumers needing them. A similar example might be given concerning automotive equipment, machine tools, special equipment, and agricultural machines.

Nor, obviously, does it make any sense to extend a contract when certain manufacturers intend to retire outdated capacities for certain products or production specialization is changing, or in a case when the consumer's production technology creates a need for a new product not manufactured by the traditional supplier.

[Question] How is the life of contracts extended for products to be delivered on the basis of direct orders through wholesale trade not covered by allocations?

[Answer] The existing business relations in deliveries of products on the basis of direct orders of consumers not involving allocations should be preserved if there is still a need for the product.

The question of extending the life of contracts is decided independently by consumers and suppliers within the periods of time acceptable to both parties. In this case the extension and conclusion of contracts do not in our view involve any sort of deadlines and can be done at

any time of the year. For example, if the consumer is fully convinced of the need for a given product and has calculated the amount of it, he could even now conclude (or extend) a contract for its delivery not only in 1990, but even over a more remote period. This is advantageous both to the supplier and also the consumer. The supplier is after all interested in building up his own portfolio of orders for the future as soon as possible. And the consumer in turn is guaranteed in advance that the products and materials he needs will be produced.

[Question] Who holds the option in connection with extension of contracts?

[Answer] The Law on the State Enterprise emphasized that the consumer enterprise has the option to preserve and expand direct long-term economic relations with manufacturers and to select the form of delivery.

Supplier enterprises are required to meet the direct orders of consumers and entities for material and technical supply not involving allocations. Provided, of course, they correspond to the specialization and configuration of the supplier and have been submitted so as to take into account the time required to shape the production plan and the physical resources to back it up.

If in economic relations that exist and have been in effect for at least 2 years the manufacturer refuses to extend the life of the contract to deliver products on the basis of direct order not covered by allocation, then the consumer enterprise is entitled to take the dispute to the appropriate arbitration commission for its examination, since a supplier may not unilaterally disrupt economic relations which already exist.

In the absence of existing economic relations, when a supplier refuses to extend the life of a contract to deliver products on the basis of direct order not covered by allocation, the question of meeting the requirements of consumers and organizations for material and technical supply is taken up and decided by the manufacturing ministry jointly with the consumer ministry, and if necessary USSR Gosplan participates as well.

[Question] In connection with the work of extending contracts to 1989 and 1990, will job orders be issued as in the past to cover the entire volume of products to be centrally distributed?

[Answer] The recommendations on methods of extending the life of contracts states that after state orders, allocations (stocks), and other initial data are broken down to the enterprise level, the necessary revisions as to the list of products and the size of deliveries may be made in those contracts. Contracts are extended with respect to the specifications revised by the consumer enterprise at the level of the allocations in effect in 1988 for the consolidated product list (assortment).

If the allocations (stocks) appropriated by ministries figuring as disbursing agencies to enterprises for the period 1989-1990 concerning centrally distributed products do not correspond to the product list or volume of resources allocated for 1988, resource-supplying departments of USSR Gosstab communicate to their regional authorities and the respective ministries and supplier enterprises only changes in the volume of products to be delivered to the given region by each supplier enterprise.

On the basis of these changes regional components in the system of USSR Gosstab (ministries) make changes in planning documents issued earlier to consumers and suppliers for delivery of products in 1988. These changes of planning documents are the basis for making changes in contracts.

Extension of contracts concluded previously relieves the enterprise and also the ministry and other higher-level authorities from having to organize and conduct in a short period of time the extensive and complicated work of concluding contracts. What is more, it develops initiative for further expansion of long-term economic relations, creates conditions for continuity in the process of meeting the needs of the economy for products, and simplifies the very procedure involved in arranging deliveries.

07045

#### **Need To Reexamine System of Fines, Sanctions Advocated**

18200156c Moscow *EKONOMICHESKAYA GAZETA*  
in Russian No 18, Apr 88 p 15

[Article by P. Akhmedeyev, candidate of economic sciences, Moscow: "Profit From Fines?"; published for the purpose of discussion]

[Text] Today there is probably no longer a need to explain to anyone that the financial results of cost-accounting activity of enterprises depend largely on the level of fulfillment of contracts for delivery of products and fines paid for violating them.

The irreversibility of penalties spells trouble for the delinquent supplier. But often there is not sufficient basis for these penalties to redound to the benefit of those on whose behalf they have been applied. I fully concur in the opinion of the authors in *EKONOMICHESKAYA GAZETA* who feel that the present system of penalties not only does not sufficiently correspond to the principles of full cost accounting and self-financing, but in fact undermines them.

For example, the share of forfeits for nondelivery of products in 1987 was equal to half of the total amount of economic penalties paid by industrial enterprises. But in the metallurgical complex their share reached 60 percent. In Minneftekhimprom, Minkhimmash, Minpribor, and a number of other ministries the value of the

negative difference between forfeits received and those paid for nondelivery of products was close to or greater than the volume of underfulfillment of their profit plans.

There is no need to prove that the problem disappears all by itself if contracts for product deliveries are performed to the full extent. But at present we have not achieved this ideal: too little time has passed since we began to actively overcome the adverse consequences of the slump in economic development. Which is why economic practitioners today speak unanimously about the need to put order in the system of penalties, to bring it into conformity with the new economic mechanism. Some of them say that the system of penalties is excessively rigid, while others, by contrast, feel that the penalty for nonperformance of contractual obligations should be increased.

One can understand this contradictoriness. After all, every enterprise figures simultaneously in two roles: as supplier and consumer. And its position depends on the side where it suffers the most.

In what direction should the system of penalties be improved?

#### **In Conformity With the Law**

In our view, revision of the system of penalties should aim at "purging" it of sediments deposited by the old economic mechanism.

As is well-known, the supplier's property liability for violation of contractual obligations is envisaged by the legal norms in effect in two forms. First, in the form of penalties exacted in a fixed percentage of the value of obligations unfulfilled, and second, in the form of reimbursement of the loss inflicted, which includes even lost profit.

But the absence of real cost-accounting relations has had the result that even in a case of reimbursement of losses, enterprises are not able to offset their actual losses. The stimulative importance of penalties as a factor promoting fulfillment of obligations has also proved to negligible. Formalistic cost accounting, with its practice of redistribution of resources among enterprises performing well and those performing poorly has had the result that penalties have had practically no effect on their financial condition.

As the transition is made to full cost accounting and self-financing, when the importance of profit increases, every opportunity is emerging for the penalties to perform their functions to the full extent.

Full compensation of losses, as envisaged by legislation, could conform to the principles set down as the basis for organizing full cost accounting: reimbursement of damages to the extent of expenses incurred and realistic loss of income.

Yet experience indicates that at present enterprises usually go no further than filing claim to collect the penal-



ties. In our view, this is related to the fact that reimbursement of losses requires not only admission of the fact of a violation of an obligation, determination of the offender's blame, but also the difficulty of proving that losses have occurred and proving their size. At present, because of the lack of established methods of estimating losses, it is rather complicated to do this, and it is still more complicated to obtain a favorable decision in arbitration.

The constant demands from consumers for a substantial increase in forfeits to a level that guarantees maximum reimbursement of losses have become a kind of reaction to this. But this would hardly seem to be advisable. There are cases when losses do not occur at all, but the forfeit would still be subject to exaction. What is more, it is unrealistic to envisage in a regulation on deliveries a differentiation of penalties for all cases that incur in life that would guarantee that the size of compensation of losses would be justified. In some cases the forfeits will inevitably turn out to be excessive, and in others they will be inadequate.

In our view, this problem can be solved as follows in a number of cases. Given expansion of the independence of enterprises, there is a need to eliminate excessive regulation of the property liability of enterprises for breaches of contract obligations. This could be promoted by more widespread practice of applying contractual forfeits, when the penalties are established by agreement between the parties themselves. It is obvious that in such a situation there are better opportunities for taking into account the mutual interests of the parties in a context of cost accounting, including compensation of possible losses.

The entire normative base of contractual relations needs to be brought into conformity with the Law on the State Enterprise. As the transition is made to full cost accounting, it is becoming intolerable for the liability of transportation, energy supply, construction, and certain other enterprises and organizations to be limited. Beyond question they must be liable in the same way as industrial enterprises. At present they are in a privileged position. It would seem to be no accident that the penalties received in USSR Minenergo regularly exceed those paid out several times over! However, in spite of the obviousness of the situation that has come about, the problem is not being solved. In this connection people frequently overlook that exemption from the scope of full cost-accounting liability of just one segment of the national economy can detract from the effectiveness of the entire cost-accounting mechanism.

#### **Both an Incentive and Compensation**

The effectiveness of penalties depends largely on the specific mechanism whereby they have an impact on the cost-accounting income of enterprises. Instead of the penalties being charged to profit, the procedure in effect at the present time is for the net result of amounts paid and received in the form of fines, forfeits, and other penalties to be charged directly to that portion of profit (income) which remains at the disposition of enterprises.

The accepted procedure in no way affects the revenues of the state budget, since mutual transfers of penalties bypass the state budget. That is why when a particular enterprise has a net deficit on the basis of penalties, the budget does not lose its revenues, but when the net result is positive, those revenues do not increase. It is often assumed that the previous procedure for charging penalties to profit (income) had an adverse effect on the state budget. This would not seem to be altogether correct either. What the state budget has lost when an enterprise paid penalties it has recovered from the enterprise which received the penalties.

And what has been the effect of the payment of penalties charged to cost-accounting income on performance of their function as a compensation and as an incentive?

In the case of full reimbursement of losses to consumers, compensation of cost-accounting income is higher, since the loss calculated in terms of losses of profit, is naturally greater than the cost-accounting income lost. For suppliers this exaction of penalties is not applied to all of profit (income), but only to that portion which remains at the disposition of enterprises, which would seem to automatically increase their proportion.

Thus the new procedure for exaction of penalties has a more telling effect on suppliers who violate their contractual obligations. It also guarantees fuller compensation of the consumer's losses.

The intimate dependence of the financial prosperity of enterprises upon the amounts of penalties they pay is to be expected under the conditions of the transition to full cost accounting. That is why charging the penalties to cost-accounting income seems justified at first glance. But the tightening of liability must not be artificial in nature, but must correspond to the nature of economic processes. Strictly speaking, the charging of the penalties to all of profit (income) better corresponds to the estimate of losses on the basis of profit (income). If the penalties received are included in cost-accounting income, then when the losses are calculated, the cost-accounting income lost, not the profit lost, has to be taken into account.

#### **Planned Fines**

Often the need to make penalties more effective is related only to making them more severe. At the same time, experience has shown that the effectiveness of penalties depends on many factors, above all on how perfect the entire economic mechanism is. For all the importance of penalties, in and of themselves they cannot solve the problem of strengthening delivery discipline. This requires comprehensive restructuring of the entire management mechanism and of planning above all.

It has to be admitted that a portion of the large amounts of penalties paid result from causes which do not depend on enterprises. Many of them have been facing the chronic phenomenon of an inconsistency between plans

and production capacities and physical resources. There have even been so-called "planned" fines, which occur whenever enterprises are forced to conclude contracts which they know in advance they cannot fulfill. Cases of this kind have been cited repeatedly in *EKONOMICHESKAYA GAZETA*. Cases are also encountered such as that of "Kuzbassradio" in Belovo, whose delivery plan was increased repeatedly in 1987. As a result, the planned volume of production exceeded by 25 percent the capacity they had, and the sum total of penalties exceeded 1.5 million rubles.

This kind of experience not only tends to disrupt the activity of enterprises, it even makes the mechanism of penalties inoperative. Economic practitioners, plant

directors, more and more frequently state resolutely that enterprises do not want to pay for other people's sins. The Law on the State Enterprise makes it possible to put an end to this state of affairs. The transition to full cost accounting increases the responsibility of enterprises for the results of their activity, and that includes responsibility for performance of contract obligations to consumers. At the same time, the prerequisites are being created to guarantee the formation of sound and balanced plans for production and deliveries, which must be drafted by enterprises independently. The new planning procedure, which does not directly affect the mechanism of penalties, has great importance to making them more effective.

USSR Goskomstat Reports: Fines, Penalties, and Forfeits Paid by Industrial Enterprises (millions of rubles)

	Total Amount of Fines, Penalties, and Forfeits Paid		For Underdelivery of Products Alone	
	1986	197	1986	1987
In the industrial sector as a whole	5132	8524	1985	4288
Fuel and energy complex:	408	655	97	100
USSR Minenergo	88	279	3	7
USSR Minatomenergo	18	22	—	0.3
USSR Minnefteprom	105	70	46	9
USSR Mingazprom	40	58	2	3
USSR Minugleprom	149	216	46	80
USSR Minneftegazstroy	8	10	—	1
Metallurgical complex:	540	669	298	375
USSR Minchermet	460	516	273	314
USSR Mintsvetmet	80	153	25	61
Machinebuilding complex:	593	1702	215	927
USSR Mintyazhmash	70	238	32	138
USSR Minelektrotekhprom	116	341	42	212
USSR Minkhim mash	46	101	16	54
USSR Minstankoprom	53	174	16	81
USSR Minpribor	41	99	20	55
USSR Minavtoprom	114	209	39	108
USSR Minselkhoz mash	90	316	26	146
USSR Minstroydormash	22	94	7	50
b. USSR Minlegpishchemash	41	130	17	83
Chemical and wood products complex:	1170	1625	558	938
USSR Minneftekhprom	309	326	148	173
USSR Minkhiprom	259	469	103	278
USSR Minudobreniy	218	238	120	130
b. USSR Minlesbumprom	356	561	184	352
USSR Minmedbioprom	28	31	3	5
Agroindustrial complex:	514	599	88	126
USSR Gosagroprom	436	467	67	89
USSR Minrybkhoz	46	75	15	27
USSR Minkhlebo produkt	28	35	5	4
USSR Minvodkhoz (union subordination)	8	9	—	0.5
b. USSR Gosleskhoz	11	13	4	6
USSR Minlegprom	703	1271	300	891
USSR Minstroymaterialov	101	129	16	21



### Worker Competition Examined at Shop Level

18200177a Novosibirsk *EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA (EKO)* in Russian No 3, Mar 88  
(signed to press 29 Jan 88) pp 106-113

[Article by D. P. Kuzmitskass, candidate of economic sciences, and V. A. Skripov, candidate of economic sciences (Vilnius): "Competition in the Shop"]

[Text] High output indicators are not enough to win real and not imaginary recognition of merit and authority in the collective. People also look at the worker as a person and notice the extent to which the level he has reached is commensurable with his potential capabilities, if he is in equal organizational conditions with others, how he relates to those who are lagging behind, whether he shares his experience, and so forth. For competition it is extremely important to see whether individual records contradict the interests of the entire collective, whether they reduce the overall result, and whether they violate collective ties, and if this is the case they eliminate the contradictions. In other words, the competition is called upon to overcome a certain limitedness of the system of labor and wages by the fact that it calls into question the idea of "good" work.

It is precisely from these positions that we analyze the practice of the organization of competition in Shop No 14 of the Vilnius Plant for fuel equipment several years ago when a new manager arrived. After a comprehensive discussion of questions of the theory and practice of organizing competition at seminars of engineering and technical personnel in the shop, a fairly unique variant was originated, and this is what we wish to discuss.

This competition is organized on the basis of individual assignments developed according to the methods of the Moscow Dinamo Plant: for the year and for the five-year plan according to stable normatives of evaluations of operations taking into account the personal capabilities of each worker. One takes into account the average productivity, qualifications, work experience and working conditions. Thus each participant in the conversation, whether he is an experienced ace or a newcomer, is given approximately the same possibilities of becoming a leading worker and competing with everyone. For with this kind of planning a condition for success is not the final result but the degree of activity, the creative attitude toward work, the "sporting enthusiasm," and the will. According to the conditions of the competition it is important that the calculated norm-assignment be achieved since additional points are not given for over-fulfillment. On the whole the indicator of output when summing up the results of the competition plays an important but not a decisive role in the shop.

The most important task set when developing the indicators and conditions for the competition was to find effective incentives for forming good, collectivist attitudes both within the brigade and among the competing

subdivisions that orient people toward mutual advantage and mutual assistance. How can this be done? Two indicators were introduced: "the number of laggards per 100 workers" and additional points for rendering assistance to comrades in work. Collectives hampering the normal work of others forfeited points correspondingly. The person who helps those who are falling behind not only does not harm his own subdivision but even earns additional points for his brigade or section. Passivity and sluggishness in rendering assistance or poor organization of one's own work involves the threat that someone will take the initiative and, having earned additional points, will move forward.

Among the indicators of the competition the central one has been the coefficient of rhythmic labor. Its selection as a decisive one was brought about by considerations of the fact that it is precisely the work rhythm that is the largest and most reliable criterion for the culture of labor. Labor that is uniformly difficult without shock work and emergencies also provides for high production results (volumes, products list, quality) and good savings (one eliminates the overexpenditure of the wage fund and extravagant expenditure of material values as a direct result of a lack of rhythm) and a healthy moral-psychological climate (mutual assistance, technical creativity, a peaceful, businesslike atmosphere for mutual relations, good recreation, and so forth). This indicator is calculated each day and thus unsatisfactory work to date cannot be compensated for by rush work tomorrow. It has become advantageous to work hard not at the end of the month but at the beginning of the month, thus creating a reserve.

In order to ensure rhythmic work, almost all workers of the shop have mastered related occupations and if necessary can replace their comrades. Interruptions in daily production schedules caused by partners have forced them to improve preventive repair and technical service of equipment and to maintain the normative production reserves and supplies of instruments. Soon breakdowns in the shop caused by production sections were sharply curtailed and cases of failure to meet the schedule because of mechanics, energy technicians and the instrument bureau all but disappeared.

An original indicator introduced in the shop in 1976 was "savings from reducing labor-intensiveness on the initiative of the workers." A voluntary revision of the norms which encompassed more than half of the workers in the shop today, as distinct from the excise method, is not accompanied by a payment of calculated bonuses but it is highly valued in points when determining the winners of the competition, that is, it is regarded as a most important indicator of the socially significant "spirit of excellent impulses." Somewhat later we shall discuss how success was achieved with the spreading of this initiative.

The quality of the collective's work is evaluated by several quality coefficients, and that of individual workers—by the coefficient of quality of work which is

predetermined by technological discipline, product quality, the proportion of it that is released to the division of technical control at the first request, the amount of losses from defective work, the number of complaints, cleanliness and order in the work place, care of equipment, and correct utilization of tools.

The indicators of the shop competition also reflected the collective's social development. The level of social maturity is evaluated by indicators of stability of personnel, frequency of disturbances of public order, how well young workers attend secondary evening schools, and also the number of absences for work for unknown reasons. One can derive the percentage of attendance, which is determined as the quotient from dividing the number of workers who regularly attend school by the overall number of young workers who do not have a secondary education in the brigade. This indicator motivates the collective to insist that young people go to school and attend classes regularly. Additionally, certain benefits are created for students: convenient shift work and easier output norms. In other words, the collective deliberately takes responsibility for some of the production load. The indicator of absences to work for unknown reasons makes it possible to efficiently determine the causes of the absence of workers, to take measures to prevent absenteeism, and to render the necessary assistance and support in the case of illness.

The interdependency between individual and collective results of labor is achieved through the following condition: "The best worker," who is determined each day for the shop, can be only in a brigade which has taken a prize position since the brigade points are added to his personal points. While striving for personal excellence the worker contributes to the general brigade striving to gain points in the overall "pot." As in sports: by improving one's own results one benefits the team.

Competition is a public challenge, an offer to compare forces, art, and skill. In Shop No 14 at each step one sees bright, eye-catching information concerning the competition. Next to a lathe, in the material warehouse, or in the timekeeper's office—everywhere are posted for general viewing schedules and tables which daily show the rate and quality of the work of each worker. For example, above the little desk of the warehouse worker there is a table which shows the number of mistakes made when transferring information about the movement of parts to the computer center.

The competition of the brigades is reflected at the work stands. Moreover, next to each work place, sometimes right on the stand of the machine tool is attached a schedule that shows the date of the month for which the competitor is working today. Another detail: on the brigade stand is written not only the last name of the brigade leader, but all members of the brigade. It is noted that the psychological effect increases immediately because of this: each worker is represented as though it is his name that everybody sees.

Let us emphasize that the results of the competition are summed up each day at the morning operations meeting, after which the shop chief gives the best brigade the challenge banner. Such frequent, practically continuous competition makes it possible, in the first place, to maintain the competitive enthusiasm at a high level. Everyone sees what place he occupies and what the results of his partners are as well as his chances for success. The diversity of the indicators and their various significance makes it possible to search for new reserves and introduce them into the battle in order to make up for what has been lost. Taking into account the weight of the points, the organizers of the shop competition try to provide for a struggle that would not allow the formation of too large a difference between the competitors so that there would be no temptation to "drop out." This condition was determined to a considerable degree by the differentiated calculation of the output norm, which was discussed above.

In the second place, checking every day on the course of the competition "draws" a picture of signals with the help of which the shop management learns of faults in the organization of the production process, for most frequently from the "geography" of the delays one can make a judgment about various faults. By eliminating the impediments the shop management gives a new impetus to the competition and accelerates its rate. In the third place, daily analysis of the course of the competition makes it possible to reveal and disseminate advance experience on the spot. Even the leaders see that people could catch up with them and try to work even better.

The principle of the irreversibility of incentive is in effect in the shop. The essence of it is that gratitude, whether it is praise or material remuneration, finds the advanced worker before he himself has thought about it. For example, the chairman of the shop trade union committee comes right up to the work place of a worker and asks if she would not like to receive a coupon for company furniture. She is surprised: her turn has not come yet. Then they explain to her: several times in a row she has taken first place in the competition and this gave the trade union justification for making a decision to give her coupon out of turn.

At the end of the month at the workers meeting in the shop the foremen evaluate the labor of each worker without exception. The evaluation is extremely brief and concrete. No monotonous tones are used and they try to single out in the work of each worker primarily the positive features against the background of which the shortcomings are critically evaluated. But shortcomings are regarded as deviations which can and should be eliminated.

The competition is one of the major incentives for intensive labor and cultured behavior and therefore all of its participants should be encouraged and not only the winners. Bonuses received by the collective for the

results of the competition are extremely varied. For example, the acquisition of tickets to a "sold out" attraction, subscriptions to periodicals, tourist trips, and so forth. Candidates for governmental awards are also taken first from among the winners of the competition.

The role of the family factor is widely used for incentives. In addition to written thanks and congratulations that are sent to the families of the leading workers, it has become a good tradition to have family parties usually arranged at the plant at the end of the planning period (half-year, year). The wives of the workers are invited and a surprisingly warm and homey atmosphere is created in which both praise and criticism seem to acquire much greater significance.

As we promised, we shall discuss in more detail the organization of the movement for voluntary revision of norms in the shop. This experience is at the same time a good illustration of how one can organically combine "moral" and "material" components in incentives.

The movement, which began in 1977 on the initiative of the workers A. Narunas, Ch. Bortasavich, V. Grinchenko and others, quickly grew. During the first year 25 people participated in it, the next year—80, and now more than half the workers are participating. There are brigades in which all members are participating. As a result of the revision of norms during the first quarter of 1985 the brigade of S. Zhizhnevskiy achieved a savings per worker per month of 28 rubles, the brigade of I. Ivashkevich—9.3 rubles, and A. Narunas—8.3 rubles.

But it would be naive to think that one could achieve such results, even refraining from material incentive measures applied by Aksay workers, without changing the organization of the labor and management of the collective. The movement became possible and viable because of the fact that in the approach to norm setting and payment for labor we clearly determined and introduced a number of principles that provide for a combination of personal, group and social interests.

The first principle: In order to motivate people to increase labor productivity it is necessary to strictly observe proportionality whereby along with the increase in the output there is also an increase in average earnings. For instance, if the ministry has established for a 1 percent increase in labor productivity an increase in wages of 0.25 percent, then with an increase in labor productivity of 10 percent the wages should increase by no less than 2.5 percent. A manager who violates this condition risks losing the confidence of his workers.

The second principle: The grossest distortion of the essence of the policy of revising norms is orientation to the level of wages as an indicator where one can look for objects for reducing labor-intensiveness. In places where a reduction of the rates is justified by excessive earnings of the worker one cultivates a quite incorrect idea that wages can be regulated with the help of norm setting.

Unfortunately, this false stereotype is still alive. In reality norm setting for labor is called upon to provide for revealing reserves for increasing its productivity and reducing the labor-intensiveness of the products. Consequently, the norm should be revised not because the workers' earnings are higher than others', but on the basis of data concerning unutilized possibilities: inefficient operation of equipment, violations of technological processes, the application of nonoptimal methods of labor, violations of labor discipline, and so forth. In principle it might turn out that in one and the same section a worker who earns, say, 350 rubles is working at the limit of his capabilities and the one who earns 120 rubles is working half-heartedly. But usually 350 rubles for a norm setter is a signal and a justification for stating: the worker has "poor norms," he is "living too well."

Of course it is easier to apply such decisions on the basis of a knowledge of the wages. For in order to establish the reserves at each work place it is necessary to expend a good deal of effort: conduct observations and time and motion studies of the work day, register and study the experience of the best workers, and so forth, that is, each day evaluate the individual contribution of each worker to the overall result. Without such daily painstaking work which is included in the duties of the foreman it is difficult to count on the enthusiasm of the people or a continuous increase in labor productivity.

The third principle: the fulfillment of the first two conditions should be accompanied by correct motivation for the policy for revising norms. There is much that is confusing regarding this in organizational practice. For example, one gets the idea that any revision of norms is brought about by the introduction of more progressive technical equipment and production technology. But this assertion is only partially true since the ministries themselves plan 20-30 percent of the overall reduction of labor-intensiveness as a result of the so-called "regulation of norms" or, to put it simply, searching for reserves directly from the worker. Seeing the discrepancy between the words and reality, people assume that their norms are being revised unfairly.

This confusion has been eliminated in the "ideology of norm setting" in the shop. In conversations with people we have clearly delimited the share of participation of technical services and the workers themselves in the reduction of labor-intensiveness.

Everything that has been said is reinforced by continuous assistance to the workers in revealing and utilizing reserves and also in eliminating organizational disorders that impede rhythmic work. The shop has created creative brigades with the participation of engineering and technical personnel who along with the workers develop individual plans for labor-intensiveness and production costs. An important role is also played by the dissemination of advanced experience. The foremen play a large role here.

The aforementioned conditions have created in the workers an interest in voluntarily revising their norms. When receiving an assignment for reducing labor-intensiveness and taking additional commitments, on the one hand, they gain freedom of choice as to which specific part-operations should become less labor-intensive. Nobody can know the reserves better than the workers themselves. Conflicts in the revision of norms are most frequently caused not by the amount of the reduction but the insufficiently qualified intervention of the norm setter in this process. On the other hand, they receive moral satisfaction from the fact that they are actively participating in solving the collective's problems and also from the signs of attention associated with promotion to leaders in the competition.

In conclusion I should like to say the following. Using practical experience we try to show what a difficult and, frankly, troublesome thing it is to organize competition. Its success requires primarily from the organizers a carefully thought-out conception of the economic and sociopsychological mechanism of human behavior and interrelations. Such a concept cannot be formulaic. If the manager does not find within himself either the desire or the will or the capability to take this on wholeheartedly it is better to forget about it and remain within the framework of customary methods of planning, organization, and stimulation. In order to "raise" the entire layer of organizational-management issues related to the introduction of an effective system of competition, it is not enough to have the efforts of the trade union aktiv or one or two specialists who are called "socialist competition engineers." The director personally must be the ideologist and coordinator of this work at the plant level, and at the shop level—the shop chief. Otherwise instead of advantage there will be only harm. Formalism in competition touches very important psychological aspects of human nature and it is as destructive as a drought is for living vegetation.

A couple of figures for the skeptics. Shop No 14 before 1976 was considered the most backward and "hopeless" at the plant. Even during the first 2 years of work in the new way labor productivity increased by 40 percent, defective work decreased by 65 percent, and labor turnover decreased by a factor of 3. Just during the first year shift losses decreased by a factor of 1.8 and absences—by a factor of 4.

The high rates of increase remained under the 11th Five-Year Plan (7-10 percent). At the present time the shop has one of the highest percentages of rhythmic operation (98-99 percent). The plant's Challenge Red Banner rarely leaves the shop. Its work experience has repeatedly been mentioned in the republic and union-wide press.

COPYRIGHT: Izdatelstvo "Nauka", "Ekonomika i organizatsiya promyshlennogo proizvodstva", 1987

11772

## INVESTMENT, PRICES, BUDGET, FINANCE

### Greater Capital Investment Proposed Under New Investment Policy

18200143 Moscow *PLANOVOYE KHOZYAYSTVO* in Russian No 4, Apr 88 pp 45-54

[Article by A. Malygin, doctor of economics: "The New Investment Policy"]

[Text] The acceleration of socio-economic development requires the transition to the intensive type of socialist production on the basis of scientific-technical progress. This transition is effected as the result of profound reforms in the forms and methods of planning and management of the national economy, in the consciousness of people, and in the renewal of production. Planning and management are important elements of the production relations, which must constantly be brought in correlation with the productive forces, and the latter—with new requirements and economic conditions.

Today work has unfolded in regard to the formation, on a planned basis, of a new production apparatus, which makes it possible to achieve, by the end of the century, the program targets with respect to production, to double the national income, to increase labor productivity by a factor of 2.3-2.5, and to free more than 20 million people from heavy and unhealthful work. We will have to renew and double the production apparatus on a qualitatively different technical level. It is necessary to secure the efficiency of the the production potential, the more rational employment of the population, the protection of the environment, and the economy of raw material and fuel-energy resources in the processing industry, transportation, construction and the consumer sphere. Hence emanate the demands for the utilization of capital investments and the restructuring of the economic mechanism in the reproduction of fixed capital. The increase of the economic validity of the capital investments being allotted means that their volumes being planned are equal to such a part of the combined product (both for the national economy and for the individual sectors and complexes), which by itself does not permit the reduction of the share of the product for consumption and non-productive construction, i. e., leads to the constant growth of the prosperity of society. *In every sector and in every enterprise, the increase of capital investments must be accompanied by the growth of production efficiency. This is one of the components of the new investment policy, its chief difference from previous approaches to the substantiation of reproduction activity.*

It is important that the capital investments in the national economy and individual sectors be used purposefully (above all for the realization of the achievements of technical progress) and efficiently, i. e., that they guarantee structural changes in the economy and a rapid return. In the enterprises, their effect is related to the reduction of production expenditures, the freeing of

manpower, and the necessary assortment and high quality of the products. Capital investments in new construction—these are funds which, in the presence of their centralized planning, cause structural improvements in the production sectors that answer the needs of the national economy for the necessary production.

In accordance with the Law on the State Enterprise, capital investments in an existing production facility are formed through its own funds, which have two sources: Amortized deductions and profit. The question arises to what extent these sources can be used for the needs of the enterprises. The formation of the fund for the development of production, science and technology depends on the needs for the reproduction of fixed and working capital. The part of the amortization necessary for the compensation for the removal of the funds and profit for the expansion of the reproduction of fixed and the replenishment of working capital must become the main components of the fund for the development of production.

*And thus, the economically substantiated allotment of funds for capital investments, their purposeful use within the limits of substantiated efficiency and the sectoral structure of production, and the balanced coordination of the needs of the enterprise with its own sources of funds are the chief directions of the investment policy, which is aimed at a significant growth of labor productivity, the production potential, and the national income, at the creation of a corresponding system of management of the reproduction process.*

The economic reform in capital construction has changed the system of management and the methods of planning. A fundamental change is taking place in the correlation of centralized capital investments and the volumes of production at the expense of the enterprises' own funds. The development of the reform is in need of the formation and specification of economic norms regulating the reproduction process in the enterprises and throughout the national economy. We are talking about the norms of amortization and the norms for the use of profit and the formation of the sources for the financing of capital construction. The specified system of norms and standards, as well as the new system of prices, including price estimates and wage rates in construction, will guarantee equal economic conditions for the development of cost accounting relations in the reproduction of fixed assets and production capacities.

For the creation of an efficient production apparatus, large changes are planned in the structure of material production. In the realization of the structural and investment policy, the following are very important: The timely restructuring of machine building production, its reequipment on a new technical basis, the acceleration of the introduction of production capacities being created, and the efficient use of the growing volumes of capital

investments. Especially necessary are the reduction of the periods of construction, reconstruction and technical reequipment of the machine building enterprises.

At the present time, capital construction is holding back the reequipment of the machine building sectors. It is not ready to quickly realize even the available results of scientific-technical progress. Thus, from year to year, both the plan periods and the actual periods of the completion of the construction of machine building enterprises are being moved. New projects are included in the plan without sufficient provision of priority and carry-over construction. The number of projects being built simultaneously is increasing, the periods of the construction and introduction of production capacities are being dragged out, and resources are being dissipated.

As a result there arose difficulties with the output of machine building products. The national economy has a shortage of needed equipment, and its quality is increasing slowly. The for the restructuring most important sector of the production apparatus proved to be unprepared for the high targets of the current five-year plan. But it is precisely in this five-year plan with the goal of accelerating the introduction of the priority and the most important carry-over construction projects that work must be carried out in regard to the concentration of capital investments, material and labor resources, the reduction of the duration of construction through the limitation of the number of newly-started construction projects, and the conservation and temporary suspension of a part of the construction starts.

As the analysis of the preparation of the annual plans of capital construction for the machine building industries shows, work at times is conducted not in this direction. The funds freed as the result of the exclusion of secondary construction projects from the plan are directed not into priority projects, but into construction that is being newly started. As a result, together with the conservation of projects capital investments are being dissipated, the volumes of incomplete construction and the losses from the deficiency in the introduction of production capacities are growing.

The elimination of the noted negative phenomena requires from the ministries and departments urgent measures with respect to bringing the construction starts, especially for the machine building industries, in conformity with the capital investments and the norms for the duration of construction being planned.

If the targets in regard to the acceleration of the development of the machine building complex will not be fulfilled, this may turn into great losses in the national economy. According to the USSR State Committee for Statistics, during the three quarters of 1987 alone 28 percent of the production associations and enterprises of the industry failed to cope with their contract obligations. The plan, with due regard to the obligations in



regard to deliveries, was underfulfilled only to the extent of 2 percent, but because of their frustration the customers failed to receive products worth 10.5 billion rubles, including machine building products—worth 3 billion rubles; 60 percent of the enterprises of the machine building complex did not fulfill their contract obligations. As a result, the plan of contract deliveries for machine building as a whole turned out to be unrealized. This once more speaks to the necessity of adopting measures to improve the work both of the machine building workers and the construction organizations engaged in machine building construction projects. Such measures are necessary to a still greater degree for the fulfillment of the volumes of the increase of production by 40-50 percent being planned for the five-year plan and capital investment in this sector—by a factor of 1.8. Otherwise the important structural changes to increase the share of machine building in the gross social product and the restructuring of the production apparatus of the sectors of the national economy on a new technical basis are impossible.

*The direction of capital investments into the realization of the most effective achievements of scientific-technical progress is determining both today and in the future. Consequently, methods are necessary for the assessment and analysis of the presence of the results of scientific-technical progress, their entry in production, and the balanced coordination of the needs of the reproduction process for new technology with the development of machine building construction. Such coordination must take into account both the possibilities of machine building and the state of the reproduction process, since it corresponds to the level of the norms and standards regulating this process. You see, today the above-norm stocks of uninstalled equipment at construction sites alone comes to over 5 billion rubles, moreover, another part of it is inactive in incomplete construction, the above-norm magnitude of which on 1 July, 1987, exceeded 8 billion rubles.*

The realization of the targets with respect to the output of machine building products being planned for the current five-year plan, as well as the regulating of the reproduction process are becoming a concern of paramount importance. The realization of the structural changes being projected by the plan in the direction of the priority development of the machine building sectors with respect to the volume of production, its quality, capital investments, and their use is the main link of structural and investment policy in the future and especially in the current five-year plan.

*The build-up of the share of accumulation in the national income, the increase of the growth rates of capital investments, and their paramount direction into the realization of scientific-technical achievements and the increase of the volumes of non-production construction, above all, are the content of the new investment policy. In so doing, a policy is pursued that is aimed at the reduction of the duration of construction and the realization of the means*

and the new technical solutions being invested through the saturation of the existing production with capital investments for the purpose of its reequipment with the aid of reconstruction and technical reequipment. Plans call for a distribution of capital investments that guarantees in the final analysis the growth of the effectiveness of expenditures of production resources, their economy, and the quality of the production being turned out.

Preference in the use of production capital expenditures is given to the increase of the technical level of enterprises. And this is understandable because their fixed production capital is the most important component of the productive forces of society, the bearer of technical progress, the embodiment of its achievements, and the basic result of investment activity.

*From what has been said it follows that the new investment policy is a complex of economic measures aimed at the creation of the most successful production apparatus of the country, the harmonious development of the non-production sphere of the national economy, and the efficient use of capital investments, labor and material resources. As a means of the realization of investment policy, the planning of the volumes of the reproduction of fixed assets and the indicators of their use is being increasingly closely coordinated with the balance of the reproduction process in terms of stages and forms of reproduction, with labor and material resources, the achievements of scientific-technical progress, the development of machine building and construction production, and the presence of new equipment and progressive technologies. The accelerated systematic renewal of fixed assets and production capacities in presence of new equipment and progressive technologies is possible, above all, through the balance of the reproduction stages (planning, construction, the development of production capacities, and their utilization) and the form of the reproduction of basic assets (maintenance, technical reequipment, reconstruction, expansion, new construction). The balanced coordination of the stages of the reproduction of fixed assets and the planning of the reproduction structure of capital investments on the basis of the existing norms of the duration of these stages make it possible to secure the standard concentration of expenditures of labor, material and financial resources with respect to all stages and forms of reproduction and with respect to every planned construction project, to accelerate the reproduction process, to increase its outcome yield, and, consequently, to accelerate the renewal of basic assets and the creation of the most effective production apparatus.*

In the new conditions of management, there is a significant change in the planning of capital investments for the entire national economy: There is an increase in their share through the enterprises' own means and a reduction in the proportion of centralized investments. Their correlation becomes fundamentally important for the organization of management. It signifies the proportionality between the volumes of budgetary state capital investments of production designation being used by the

central planning and economic organs and the production capital investments being formed through the enterprises', associations', ministries' and departments' own and borrowed funds and expended at their discretion. This correlation, as a rule, is the consequence of the reproduction structure of capital construction.

Non-centralized funds are directed into the reequipment of existing production through reconstruction and technical reequipment, and centralized funds—into the construction of new enterprises, new types of production, which are being created in accordance with the targets of the central planning and economic organs. Centralized funds can also be used for the execution of large reconstruction projects and the expansion of existing enterprises in those cases where they are carried out on a large scale on the initiative of the central organs for the purpose of satisfying national economic needs.

*The maximum possible reorientation of the very technical novelties and capital investments in existing production is the most effective way of mass acceleration of the introduction of the results of scientific-technical progress in existing production.* The expenditures for reconstruction and technical reequipment are projected to increase from 43 percent in 1986 to 50 percent in 1990, and in the future, according to our calculations (observing the rate of the renewal of assets in accordance with their standard service periods), they will come to 60 percent and more. Thus, it may be concluded that in the future the volume of non-centralized funds with regard to the execution of work and the expansion of enterprises will become no less than 60-70 percent of all production capital investments.

The fund for the development of production, science and technology will be a basic source of financing non-centralized capital expenditures in enterprises. If this fund is insufficient, bank credits may also be used. In accordance with the Law on the Enterprise, this fund is expended for the renewal and expansion of fixed assets, for the growth of its own working capital, and for the financing of scientific research and experimental design work. The enterprises independently utilizes only the amortization deductions which, in accordance with the established standard, are directed into the fund for the development of production, science and technology. Although, in our view, it would be more expedient to leave the entire amortization in the enterprise. You see, the fund is formed through amortization and profit. Consequently, with all the amortization being directed into it, the standards for the deduction of funds from profit would be somewhat lower than the ones currently established, i. e., the magnitude of the fund for the development of production would remain the same. However, its formation could be simpler and more convenient, there would no need to establish standards for the deduction of means from amortization into the fund for development, and amortization itself, as a reproduction category, connected with the fixed assets of the enterprise, to a large extent would correspond to its reproduction designation.

But since the Law on the Enterprise nevertheless provides for the direction of only a part of the amortization into the fund for the development of production, it seems to us, this part must correspond to the needs for expenditures for the compensation of the write-off of the fixed capital of the enterprise. It will come to 60-70 percent of the amortization for complete renewal. The remaining 30-40 percent of the deductions must enter into the disposal of the associations, ministries and departments, i. e., into the centralized sectoral funds for the development of production.

Such distribution is objectively called forth by the service periods and the rates of expanded reproduction of fixed assets. The equality of write-off and amortization for renovation can only be in the presence of simple reproduction. In the presence of expanded reproduction and the observance of the established service periods of the assets, a certain natural correlation between write-off and amortization takes shape. As the calculations show, with growth rates of the assets of 4 percent and their write-off rates of 3.5-4.0 percent (to them correspond average periods of their service of 17-18 years in duration, and of the active part—11-12 years), the share of write-off in amortization for renovation must come to no less than 70-72 percent. With the increase of the growth rates of the assets, this share diminishes. Already with rates of 7-8 percent (the current rates) and the same periods of service of the assets, it diminishes to 48-50 percent. From this it may be concluded that with an appreciable change of the dynamic of the assets in an enterprise, the standards for deductions from amortization into the fund for development, science and technology must also change.

Another missing part in capital investments for the execution of reconstruction and technical reequipment in enterprises must be formed at the expense of profit in accordance with established standards. Its magnitude also must remain changed only for a short time. It depends on the rates of growth of the fixed assets and working capital, the periods of their service, the duration of which takes into account the obsolescence and physical wear, the necessity of their replacement and renewal through reconstruction and technical reequipment. The standard for deductions from profit into the fund for development, science and technology is called forth by the difference between expenditures for reconstruction and technical reequipment and the sum of amortization deductions for renovation that remained with the enterprise.

Thus, amortization for renovation and the part of profit being accumulated in the fund for development of production, science and technology is the main source of non-centralized capital investments necessary for the reproduction of fixed assets in enterprises. These are the enterprise's own funds, which are designated for the self-financing of major work with respect to the reproduction of fixed production assets.



According to statistical data, in 1985 the enterprises' own funds from all sources of the financing of capital investments within the confines of the established limit came to 50.7 percent, of them amortization expenditures accounted for 36.7 percent, the remaining 14 percent were deductions from profits and other sources. A part of this profit (1.9 percent) was realized through the fund for the development of production, and the magnitude that remained—through the material incentive funds, socio-cultural measures and other channels of use.

At the present time, the use of profit for ministries is regulated by the standards of deducting it into the state budget approved in 1987, as well as into the fund for the development of production. These and other standards, in our view, are excessively differentiated. Thus, for the USSR Ministry of Power and Electrification 1 percent from profit is taken into the fund for the development of production, but for the Ministry of Tractor and Agricultural Machine Building—20 percent. The standards for deductions into the budget have been established within limits from 8-80 percent. It seems that such differentiation is inadequately substantiated. The dimensions of the standards should be determined by the conditions of the production and reproduction of fixed assets and working capital. *It is important to put the stress on economic methods of substantiating capital investments.*

The quality of economic growth is characterized, above all, by the dimensions of production expenditures per unit of production turned out. In the most general form, they can be taken into account through the determination of the expenditures of labor and material resources, fixed production assets, and capital investments. The quality indicators of economic growth in concrete form are the specific expenditures of wages, the material and capital intensiveness of production, the specific investments for its increase, and the summary indicator of the efficiency of the use of production resources. The latter compares expenditures earmarked for different purposes, since intensive and extensive sources of economic growth are interrelated, i. e., the economy of some types of expenditures takes place at the expense of additional expenditures of other resources. The peculiarity of the economic situation is characterized by the degree of the provision of production with resources.

For every link of the national economy, the effect is determined through the comparison of the difference between the production obtained and the expenditures for its output, and i. e., the product produced for other links (sectors, spheres), and its relation to the production expenditures may be reflected in the summary indicator of the efficiency of the use of resources.

The specific expenditures of wages, the capital and material intensiveness of products, and the specific capital investments for their increase are calculated through the comparison of the corresponding expenditures with production, and for this reason they are partial. The

summary indicator of the efficiency of the use of production resources is determined against the background of wages, material expenditures, the amortization of fixed assets, and the production capital investments, as well as on the basis of the corresponding specific indicators. Along with the characterization of the efficiency of material production, it can serve as an instrument for the substantiation of the expedient use of individual resources. For example, the economic substantiation of the volumes of production capital investments should be supported by the stabilization or the growth of the summary indicator of the effectiveness of expenditures both in the analysis of the past and in the study of the prospects of the development of the national economy.

The principle of the observance of the growth or stabilization of the summary indicator, as the calculations indicate, can be used for the substantiation of the sectoral volumes of production capital investments. Their total volume is determined by sectors with regard to self-financing and the securing of efficiency of resources in every subsequent period that is not less than in the preceding one. This means that the production being turned out in every sector covers the labor and material resources, as well as the capital investments. The part of the products that remains in the form of the effect of the sector enters into the national economy; moreover, its relation to the production expenditures must be no less than in the preceding period.

In the interest of strengthening centralized planning, the increase of the economic validity of the plan and the facilitation of its development in the determination of the sectoral volumes of capital investments, the non-centralized funds according to the data of the enterprises and ministries, above all, are taken into account. The centralized volumes are obtained as the difference between economically valid general volumes in the sector and the sum of non-centralized capital investments in the same sector. The centralized part must be used, as a rule, for new construction and the large-scale expansion of existing enterprises, which is the prerogative of the central planning organs independent of the level of management on the initiative of which such necessity arises.

The method set forth may be applied also for the economically expedient distribution of capital investments for isolated complexes of material production sectors.

*The requirements for the rational use of capital investments and the improvement of the economic mechanism of the reproduction of fixed assets result from the necessity of increasing the technical and economic level of the existing capacities and the capacities being created, the securing of full and more productive employment of the population. The economic substantiation of the volumes of capital investments being planned is the most important quality of the plan. The new here consists in the fact that these volumes are a part of the combined gross*

product, which by itself does not permit either an absolute or a proportionate reduction of the share of the product for consumption and non-production construction, i. e., guarantees the constant growth of the prosperity of society.

It is important to place this principle at the basis of the economically expedient distribution of capital investments by sectors and national economic complexes. It must be realized in such a way so that there is an increase in the efficiency of the expenditure of resources in every sector. In this lies the essence of the restructuring of the investment policy, the difference from previous approaches to the substantiation of reproduction activity.

In recent years, as analysis shows, approximately one-fifth of the projected level of capacities of existing enterprises is underutilized both with respect to production output and production efficiency. This takes place basically because the shortage of labor resources. *The chief means of reducing the requirements of enterprises for manpower in present-day conditions is the renewal of production, the increase of its technical level, which guarantees the most productive employment of people. This task is becoming the subject of economic strategy, linked with the substantiation and use of capital investments, with the replacement of living labor by objectified labor, and with the renewal of production through reconstruction and technical reequipment.*

In the most general form, such renewal is characterized by a coefficient that is expressed by the relationship of the introduction of assets to assets at the end of the period under review. The assigned level can be systematically attained through the establishment and realization of the indicators of the introduction and write-off of fixed production assets. However, for the time being only introduction is a plan indicator that is being approved. In the future, the centralized part of the introduction of capacities and assets will be brought to ministries, departments, and construction organizations in the form of a state order. Besides, the USSR Gosplan, in the composition of the initial data for the development of the five-year plan, will bring to the ministries, departments, and union republics, whose contract organizations are carrying out the construction, the aggregate volumes of construction and assembly work as the basis for the conclusion of contract agreements by the construction organizations. The write-off of fixed assets has always remained an accounting indicator in the balance of fixed assets, but in the future it will go over into the authority of enterprises, which independently work out the plans of technical reequipment and reconstruction of existing production. The task consists in seeing to it that at the level of the enterprise, too, the write-off of fixed assets becomes a subject of planning. Without this indicator it is practically impossible to balance the growth of fixed assets with the results of technical progress and the productive employment of the population. The write-off

serves as the characterization of the withdrawal of obsolete fixed assets and production capacities from operation. You see, intensive renewal is the combination of measures, as the result of the realization of which new, more productive machines are installed in place of the concrete obsolete machines. The more such means of labor in the introduction of fixed assets, the more effective the renewal.

The accelerated renewal of fixed production assets in the future must be secured by the growth of their write-off and compensation from 2 percent in 1985 to 3-3.5 percent in subsequent five-year plans. In so doing, the rates of the build-up of fixed assets will slow down significantly, and capital investments will grow, which makes it possible to propose the accelerated renewal of fixed assets that realizes the transition from the expansion of production potential to its fundamental transformation on the basis of the latest achievements of scientific progress. For this reason, in parts of the plan questions of the renewal of production must be considered in connection with the output of new, and the withdrawal from production of obsolete types of production, the mastery of new equipment and technology, the protection of the environment, and the efficiency of the use of resources.

The most important parameters of the renewal of fixed assets are the periods of their service and the improvement of the consumer qualities of the machines and equipment on which introduction and write-off depend. In determining the standard service periods of the means of labor, it is impossible to establish them, for example, shorter than the duration of the serial outputs of the corresponding machines and equipment. Otherwise the compensation of the equipment being written off will be effected by the same forms, which does not increase the productivity of the existing machine park through technical progress. Already by the end of the current five-year plan, the duration of the renewal of machine building construction is projected to be reduced to 7-7.5 years, which would have to be considered to be the lower limit of the duration of the average service period of machines and equipment.

The renewal of the production apparatus is closely connected with the duration of construction. Its success depends on the quality of the capacities being introduced, as well as on the rates of their introduction. The duration of construction, in its turn, is influenced by the speed of the aging of technical solutions and the periods of their realization. Today it is known that technical developments are depreciated twice in the course of 8 years, new ideas and technical solutions—after 4 years. It is inadmissible that the duration of planning and construction should exceed these periods. On the dimensions of the renewal of fixed assets depend the rates of increasing the skills of the production personnel and the frequency of the retraining of cadres. At the present time, approximately 15 percent of the number of workers go through retraining every year. Such a rhythm, it

would seem, corresponds to the rate of the renewal of assets. But in the future it will have to become more profound and large-scale in order to correspond both to the acceleration of the renewal of fixed assets and the rate of the change of technological processes.

It is important to carry out the planning of the renewal of production in stages and by various methods. For ministries and departments, the plan tasks, both with respect to introduction and with respect to the write-off of fixed assets, can be established in the project and in the very state plan without detailed elaboration in regard to new construction, reconstruction, technical reequipment, expansion and liquidation. It would be expedient to grant to ministries and departments the rights and possibilities to plan the renewal a little objectively, i. e., with regard to concrete enterprises and construction projects. This is important in order that, proceeding from the draft of the five-year plan, the state of the production apparatus, the standard service periods of fixed assets, the ministries and departments, jointly with the enterprises, could develop and approve the developed plans for the renewal of fixed assets and production capacities for a regular planning period. It is expedient to consider the possibilities and volumes of such renewal in coordination with the reproduction structure of capital investments, because both the introduction and the write-off of assets are carried out in concrete enterprises being reequipped (being created) in accordance with one form of reproduction or another. As a consequence, the planning of write-off is more objectively possible on the basis of planning documents that are being developed for every enterprise that is being reequipped.

*The changes of the reproduction structure of capital investments are calling forth profound changes also in the structure of construction-installation work, which, in their turn, require corresponding changes in the organization of the construction business.* The construction and installation organizations basically are specialized in the execution of work with respect to new construction and expansion. For the execution of work with respect to reconstruction and technical reequipment with a predominance of complex installation of equipment, technical systems, and modern means of production control, it is necessary to respecialize construction-installation organizations, reequip them with equipment, adapted for operation in the conditions of existing production. Likewise the organization of construction and installation work should be coordinated with the realization of the basic activity of the enterprises being reconstructed and reequipped. For the time being, of course, in such conditions it is necessary to make maximum use of the economic method of carrying out construction and installation work.

The economic method is a necessary, but, in our view, a temporary thing. Incidentally, today the proportion of construction and installation that is being carried out under enterprises' own direction constitutes 13-15 percent, which is equivalent to approximately one-third of

its volumes forthcoming in the future in existing enterprises. To create large construction subdivisions in enterprises is inexpedient since the work in regard to reconstruction and technical reequipment in each of them have a periodic character. To form every time, and then to disband the subdivisions when there is a shortage of manpower is practically impossible. Consequently, the creation of large, specialized contract organizations carrying out work in regard to the reconstruction, expansion and technical reequipment of existing enterprises in contract conditions, is becoming urgent. They must operate on the principles of economic accounting and have at their disposal the appropriate construction technology and cadres.

The change of the reproduction structure of capital construction requires a corresponding reorientation of the work of planning organizations and the increase of the role of the pre-plan substantiation of capital construction for existing production. It is necessary to transfer the center of gravity of planning and research work from new construction to the study of the needs and requirements of the reorganization of existing enterprises. Reconstruction and technical reequipment, no less than new construction, are in need of reliable documentation, technical-economic substantiations, and plans. Not well-thought-out, inadequately substantiated, and quickly executed arrangement of new, modern equipment the existing shops does not produce the expected effect. This is how it was with the processing centers, the machine tools with numerical program control, and other equipment. Unfortunately, of five enterprises being technically reequipped, only one to two are provided with complete planning estimates, which is inadmissible.

Today there is also another very important reason for the specialization of planning organizations for the reorganization of existing enterprises and enterprises being created. As a result of the measures being taken in regard to the acceleration of construction and the concentration of capital expenditures in conformity with the standards of its duration in 1987, the summary estimated cost of the planned construction projects was reduced, mainly through the limitation of newly-started construction, its conservation and suspension.

In 1988 the reduction of the capital construction front will continue with the same goal of accelerating the introduction of the most necessary production capacities. But, along with the positive achievements, the withdrawal from circulation of significant, earlier created material values is taking place. With the reduction of the summary estimated cost of production construction as the result of the conservation of construction projects from the reproduction process, as a calculation shows, a construction stockpile valued at several billion rubles was written off in 1987 alone.

In this connection, it is expedient to conduct planning and research work with respect to the further use of projects that have been started and are not completed, in

particular new construction projects. The planning organizations must study every concrete construction project and prepare technical-economic substantiations with respect to the use of all enterprises and installations that have been laid up and stopped by construction. Obviously, in some cases variants of the complete re-profiling of production projects may be examined for the purpose of creating other, in technical respects more advanced and economically efficient manufactures.

COPYRIGHT: Izdatelstvo "Ekonomika". "Planovoye khozyaystvo." 1988

8970

### **Enterprise Experiment with Economic Risk Fund Detailed**

18200150a Moscow *EKONOMICHESKAYA GAZETA*  
in Russian No 16, Apr 88 p 8

[Article by S. Aleksashenko and S. Zenkin, economists]

[Text] The majority of enterprises that have been changed over to the new management conditions are operating according to principles of the first model of complete cost accounting and self-financing. But, as research shows, many of them are already beginning to prepare for changing over to the second model. Of course this fund is riskier and does not guarantee automatic transfer of money for the formation of the enterprise fund for the payment of wages. But it is more effective and preferable, and it more closely links the final results of the cost accounting activity of the labor collectives to the payment for their labor. In the process of changing over from the first model to the second one can take advantage of the experimental work of the Tbilisi bentwood furniture combine during 1984-1987.

"In conducting the experiment," notes the combine's director, A. Dzharidze, "we pursued two goals: first, to test the effect of the new elements of the economic mechanism, which would subsequently be extended to all enterprises of the Georgian Ministry of the Timber Industry. And, second, to find new forms and methods of organizing and stimulating the production of high-quality products."

First of all at the enterprise we changed the policy for forming the assortment plan. From the very beginning of the experiment the branch ministry began to establish for the enterprise approximately 80 percent of the production program. The rest of the production plan was determined independently by the combine with the agreement of the republic ministry. The labor collective was given the right to change the assortment in its part of the products list without restriction, in keeping with the changing demand.

The experiment also envisioned flexible utilization of price levers. The enterprise independently established the normative-technical documentation and set temporary wholesale and retail prices for new items for a period of a year without restrictions of the volumes of output. They were also allowed to reduce prices on products for which there was no demand. In this case the losses were reimbursed at the expense of the enterprise.

Along with this a new system for forming the income of the combine was applied at the enterprise.

Subtracted from the earnings from sales was the production cost, which included the wages of piece-rate workers at their various rates and the salaries of time-rate workers and auxiliary personnel. After taking money from the balance profit to pay payments for funds, deductions according to normatives into the state budget and centralized funds of the ministry, and to settle accounts with the bank, the profit remaining at the disposal of the enterprise was formed. Also added to this was the wage fund, which had been included in the production cost, thus forming the overall income of the labor collective. The funds of the enterprise were also formed from this according to the normatives.

"This system," emphasizes the chief of the combine's division for labor and wages, V. Lozinenko, "at first glance seems quite similar to the first model of cost accounting. Perhaps exceptions pertain only to the first two aspects. These are, in the first place, the existence of a special buffer fund—the economic risk fund, from which they paid fines, penalties, forfeitures, and other unstable accounts. Money from it is also used for making reimbursement for losses when prices are reduced for products which are not in demand.

"In the second place, this system differs from the first model of cost accounting in the formation of the unified wage fund which, as we know, is envisioned by the second model of cost accounting."

The money from the wage fund that is included in the production cost, according to the conditions of the experiment, was not the intended source for paying for labor. When it was included in income it was "depersonalized" and was distributed according to normatives along with the money from the calculated profit. The sum of money for wages was determined according to the result-residual method after the formation of the funds of the enterprise, which makes the system for distribution of earned money developed by economists of the enterprise fairly similar to the second model of complete cost accounting. Wages of managers, engineering and technical personnel, and employees and bonuses for workers depended directly only on the income of the enterprise and were not guaranteed if the planned assignments were not fulfilled or if there was a shortage of money.

The formation of the unified wage fund in certain volumes certainly did not mean paying out all the money that was received. The factors that limited the growth of wage fund were the normative ratio between the rates of the average wage and labor productivity and also the maximum possible wage fund.

It was the wage fund of the base year increased (reduced) according to normatives, depending on the increase or decrease in the enterprise's revenues during the planned year as compared to the base year.

In cases where the unified wage fund was higher than the maximum possible, the sum of the excess was used to increase the fund for the development of production or the economic risk fund. In turn, if the enterprise's revenues were inadequate to cover the maximum possible amount of the wage fund, the unified wage fund was increased with money from the economic risk fund, the manager's fund, and the reserve, created in an amount of up to 1 percent of the planned amount (with subsequent reimbursement).

The utilization of the maximum possible fund as the limit made it possible to link the dynamics of wages and the income of the collective. This element of the system for the formation of the wage fund, which was applied for the first time in the Tbilisi experiment, in our opinion, is of great interest both for management practice and for scientific analysis.

And what are the results of the experiment? Before its beginning the combine was not among the best enterprises of the branch. Built at the beginning of the 1960's, but the time of the beginning of the experiment it had exhausted practically all the reserves for its development. For example, the capital-output ratio at the combine was lower than that in the ministry as a whole by a factor of 3.2, and the increase in product sales amounted to only 0.2 percent per year. Moreover, the combine violated its contractual commitments from year to year.

But the situation changed radically with the introduction of the conditions of the experiment. Reserves that had been exhausted appeared again. The growth rates of sales increased significantly and amounted to 5.4 percent for the combine as a whole, and for the head enterprise—more than 8 percent. And this was with 100-percent fulfillment of contractual commitments!

The good results were achieved primarily as a result of increased labor productivity. Just during the first year of the experiment it increased as much as it had during the preceding 3 years. Soon the enterprise reached the average branch level with respect to this indicator, and then it exceeded it. The Tbilisi combine left the ranks of the backward ones to join the leaders!

The workers felt responsible for the affairs of the enterprise and began to work more conscientiously. The collective began to get rid of the idlers who did not wish

to work conscientiously. On the initiative of the local labor collectives, during the course of the experiment about 70 people were eliminated—10 percent of the industrial production personnel. The brigades suggested discharging not only those who violated discipline or did not fulfill the assignments, but also those who did not wish to increase their qualifications and master associated occupations.

At the combine they actively took advantage of the opportunity to maneuver the assortment freely. While previously the question of producing a new kind of product required lengthy coordination in the union ministry, now it was enough to come to an agreement with the director of the republic wholesale-retail association, "Mebel," the firm store-salon, "Interyer," through which the combine's products are sold, and the head engineer of the branch scientific production association, "Merkan"—and the new furniture could be introduced into production.

Only a month passes between the time of the first blueprint and the time when the new product is placed on the flowline. Design ideas and developments, emphasizes the combine's head engineer, A. Dzhaniasvili, were no longer placed in "file 13," but immediately began to be realized. Creative engineering thought began to seethe. During the time of the experiment more than 10 new kinds of furniture were developed and assimilated. Wastes began to be put to good use. The volume of sales from their processing increased from 35,000 rubles to 200,000 rubles last year.

The increase in production activity could not but be reflected in the financial position of the enterprise. During the time of the experiment the combine's balance profit increased by almost 20 percent.

As a result, in 3 years with the increased labor productivity the average monthly earnings also increased and the combine's financial position became stronger.

The advantages of the result-residual method of the formation and utilization of the unified wage fund and the close connection between the wages of the furniture makes and the final results of the combine's economic activity were clearly manifested last year, in 1987, when the radical restructuring of production capacities was started. The removal of outdated equipment with an overall value of almost 3 million rubles and the installation of new technological lines did not impede the fulfillment of plans for profit and labor productivity or 100-percent fulfillment of contractual commitments.

The combine is operating stably this year as well. The difficult plans for the first quarter of 1988 have been fulfilled.



## RESOURCE UTILIZATION, SUPPLY

### Gossnab Move From Central Supply to Wholesale Trade Outlined

18200157a Moscow

MATERIALNO-TEKHNICHESKOYE

SNABZHENIYE in Russian No 3, Mar 88 pp 3-8

[Editorial: "On Revamping the Organizational Structure and Activity of USSR Gossnab"]

[Text] Over what might be called the direct line of glasnost we have had several telephone calls from readers asking us to use the pages of the journal to tell about changes in the organizational structure of USSR Gossnab and about restructuring the activity of its components at the center and in the field. Many of those who have written letters have been expressing the same desire.

We believe that the issue's first article provides a rather complete idea about the nature of restructuring in the branch. At the same time, the editors consider it their duty to regularly inform readers about the most important phases of the effort of USSR Gossnab and its components to carry out the measures which have been outlined.

As is well-known, pursuant to the decisions of the June (1987) Plenum of the CPSU Central Committee, USSR Gossnab was set the task of raising the level and effectiveness of the effort to organize the supply of materials and equipment to the national economy. There are to be radical changes in the content and methods of compiling physical balances and forming economic relations, which are to be made into an effective instrument for mobile and flexible management of material and technical supply in the context of broad application of the principles of full cost accounting (khozraschet) and self-financing in the activity of the basic unit of the economy. There is to be major improvement in resource conservation and management of inventories.

The organization of material and technical supply must be structured on the basis of a dynamic transition from centralized allocation of physical resources and assignment of consumers to suppliers to wholesale trade in the means of production, and that transition must be completed over 4-5 years. The share of the means of production to be distributed on a centralized basis and covered by limit-allocations must decrease as wholesale trade expands.

In wholesale trade consumers acquire physical resources directly from the manufacturing enterprises through direct relations or with the help of the regional material and technical supply component, which in every aspect of its activity promotes establishment of stable economic relations between enterprises. The consumer has a right to acquire physical resources directly from the regional

component, which in this case purchases them from manufacturing enterprises and there is liability for non-performance of its own contractual obligations as prescribed by legislation.

Only certain products of great importance to the national economy will be distributed centrally on the basis of limit-allocations. So that the sphere of centralized distribution of physical resources is gradually reduced, USSR Gossnab and USSR Gosplan, jointly with ministries and departments, are to actively broaden the range of products to be transferred to the wholesale trade mechanism. It has been established that state orders for product production and delivery are to be compiled by USSR Gosplan and USSR ministries and departments in agreement with USSR Gossnab.

The requirements of enterprises for physical resources which they need to fill state orders are to be furnished from centrally distributed products by the authorities that break these orders down to enterprises or by regional authorities for products which they distribute. In the case of physical resources required for state orders when they are distributed through wholesale trade, enterprises will obtain them independently through direct relations with manufacturers or on the basis of contracts with regional material and technical supply components.

USSR ministries and departments are to bear responsibility for meeting the requirements of the economy and for averting disproportions between a product's production and consumption. USSR ministries and departments are required to take up problems that arise in conclusion of contracts and to see that the requirements of consumers related to deliveries of products they need are satisfied.

On the basis of the new principles for organization of material and technical supply a decision was taken to revamp the organizational structure of USSR Gossnab and to make the transition to a two-tier system of management.

The activity of the central apparatus of USSR Gossnab is based on widespread development of wholesale trade, attainment of balance between production and consumption on the scale of the national economy, coordination of resource conservation at the state level, and accelerated application of economic methods to the organization of material and technical supply. One of the important tasks is to create all the conditions necessary for guaranteeing successful and resourceful operation of regional components and development of their economic independence. The entire activity of the central headquarters is performed in close interaction with USSR ministries and departments and USSR Gosplan.

To that end the structure of the central headquarters of USSR Gossnab has been shaped on the basis of intersector complexes, intermediate links have been eliminated, and the role of the summary and functional subdivisions

has been increased. The soyuzglavsnabsbyts in USSR Gossnab have been abolished in accordance with the new tasks, and their functions and staff have been transferred to the central staff of USSR Gossnab.

The summary economic complex has been created as the principal complex in order to concentrate the activity of USSR Gossnab on solving the problems of the entire state in organizing material and technical supply under the new economic conditions and in order to guarantee a single national economic approach in this matter.

Among the most important tasks of the complex are to organize and introduce wholesale trade as the principal form of material and technical supply as well as drafting the section "Material and Technical Supply" in drafts of the Conception, the Basic Directions, and 5-year plans for the country's economic and social development, the determination, jointly with USSR Gosplan and USSR ministries and departments, of reference figures, state orders and limit-allocations, optimum freight shipment schemes, and proposals for the product export and import plan, and drafting the section "Supply of Materials and Equipment to the National Economy" in the plan of the most important scientific research on economic problems.

Work with balances is being raised to a fundamentally new level and filled with a new content, and within the complex those subdivisions are being bolstered which work out the interproduct physical balances and form the statewide reserves of the most important products for production and technical purposes.

The effort to make a thorough economic analysis of plans for material and technical supply of the national economy and to concentrate physical resources in the key areas for economic development and higher prosperity of the people is being carried to a higher level. A more intensive effort is being made to constantly improve the system for material and technical supply and to gradually introduce economic methods of management and progressive organizational structures.

Within the summary economic complex departments have been formed for the key aspects of the organization of material and technical supply: the summary department for the organization of wholesale trade; the summary economic planning department; the summary department of physical balances and reserves; the summary department for monitoring and regulating supply; the department for improvement of material and technical supply; and the summary department of foreign economic relations.

Direction of the summary economic complex is being made the responsibility of the first deputy chairman of USSR Gossnab.

It has been provided that the summary department for the organization of wholesale trade and the summary department for monitoring and regulating supply are to be headed by deputy chairmen of USSR Gossnab, who shall at the same time be the chiefs of those departments.

A resource conservation complex has been formed in order to strengthen the coordination of the effort being made in the country toward resource conservation and maximum economic employment of secondary raw materials and stocks of merchandise and supplies, as well as to conduct a unified scientific-technical policy in the area of creating and applying progressive containers and packaging in order to reduce product losses in shipping and storage.

It has been provided that this complex will be responsible for organizing the drafting and performance of nationwide, sectoral, and regional resource conservation programs, will take part in the work of USSR Gosplan to form summary indicators of conservation of the most important physical resources, and will organize the development and application of resource-saving methods of conducting economic activity.

The following have been created within this complex: the summary resource conservation department; the department of balances and organization of the use of secondary resources; the department of balances and organization of packaging; and the department of state monitoring of the use of physical resources.

Direction of the resource conservation complex is being made the responsibility of the first deputy chairman of USSR Gossnab.

An effort is being organized to shape balances of products for production and technical purposes as well as for the wholesale trade in the relevant products in a breakdown by the following intersector complexes: machine-building, metallurgy, fuel and energy, chemical and wood products, construction, and the complex for material and technical supply to the social sphere.

The activity of these complexes is being concentrated on working out strategies for effectively balancing production and consumption in the context of wholesale trade, for the fullest satisfaction of the needs of the economy for physical resources thanks to their conservation and improved use, for speeding up the rate of turnover and reduction of production stocks, for introducing resource-saving forms and methods of material and technical supply, and for optimum utilization of productive potential and production capacities. These complexes are expected to interact closely in their work with the standing bodies of the USSR Council of Ministers, USSR Gosplan, and USSR ministries and departments on the interproduct linkage of balances, on the formation

of state orders for product deliveries, on organizing the production and applying progressive new products, on development of production capacities and on their optimum specialization.

The fuel and energy complex is to be directed by the first deputy chairman of USSR Gossnab. The summary department, which is a part of that complex, is to be headed by the deputy chairman of USSR Gossnab, who will at the same time be the chief of that department.

The machinebuilding complex is headed by a deputy chairman of USSR Gossnab.

The complexes for metallurgy, chemical and wood products, construction, and material and technical supply of the social sphere are to be headed by deputy chairmen of USSR Gossnab, who will at the same time be the chiefs of the summary departments of those complexes.

One of the important conditions for major improvement of the material and technical supply of enterprises and organizations is seen to be accelerated development and retooling on an updated basis of the plant and equipment of regional components of USSR Gossnab and vigorous application to their activity of computers as well as advances of scientific-technical progress in the field of the organization, mechanization, and automation of warehouse processes and materials-handling operations.

Regional components are to develop extensively progressive forms for supplying and servicing enterprises, to raise the level of their economic statistics in a determined way, and to organize accelerated application of progressive new methods of economic activity and the organization of work.

A complex for management of the regional system of USSR Gossnab, to be headed by a deputy chairman of USSR Gossnab, has been formed to perform these tasks.

The following have been created within that complex: the economic department; the scientific and technical department; the production department; the capital construction department; and the department for equipment and aggregate supply. It was deemed necessary to transfer the *soyuzglavkomplekts* of USSR Gossnab to the supervision of the respective USSR ministries and departments in order to increase the responsibility of ministries and departments for prospective development of sectors and branches, to organize new construction, retooling, and reconstruction of production in the context of the development of wholesale trade and direct ties among enterprises, and for the transition to the principles of full cost accounting and self-financing.

The main regional administrations for material and technical supply and the gossnabs of the union republics not divided into oblasts have been designated as the

principal cost-accounting link in the system of USSR Gossnab. They now have the principal role in organizing the reliable supply of physical resources to enterprises.

It has been provided that main regional administrations for material and technical supply are to be formed by merging supply-and-sales organizations that have been operating parallel to one another in the system of USSR Gossnab, the council of ministers of union republics, *kraispolkoms*, and *oblispolkoms*, and as a rule they shall perform their activity on the scale of one autonomous republic, *kray*, or *oblast*.

The main regional administrations for material and technical supply are to interact directly with USSR Gossnab on matters of building up physical resources to be handled through wholesale trade and of placing orders of consumers.

The main regional administrations are being made responsible for supplying physical resources to all consumers in the autonomous republic, *kray*, or *oblast* regardless of departmental affiliation (with the exception of associations, enterprises, and organizations of USSR Gosagroprom and certain other sectors).

The activity of regional components of USSR Gossnab is concentrated on joining with enterprises in organizing in the region a reliable and effective system of material and technical supply on the basis of broad development of wholesale trade and optimum economic relations between suppliers and consumers, effective monitoring of product deliveries and economical product use, furnishing production and commercial information services to associations, enterprises, and organizations, and also rendering the services of leasing instruments and equipment.

Main regional administrations for material and technical supply and gossnabs of the union republics not divided into oblasts are being converted to the principles of full cost accounting and self-financing in 1988. The activity of these organizations will be based on cost-accounting income as the main source for development of production and social services and for remuneration of labor. This will be covered in detail in a subsequent article.

The gossnabs of the union republics, of which the main regional administrations for material and technical supply will be a part, are to concentrate their activity on the distribution and sale of products centrally allocated by councils of ministers of union republics to supply enterprises and organizations under republic and local jurisdiction. And also on accelerated application of the most progressive forms and methods of material and technical supply, on drafting and carrying out republicwide programs for conservation and optimum use of physical resources, on economic employment of above-allowance and excessive inventories of products, industrial and

residential waste, and the conduct of a unified scientific-technical and investment policy in developing the material and technical base of supply; on supervision of the economic activity of subordinate main regional administrations performed on principles of full cost accounting and self-financing.

The main regional administrations for material and technical supply being created in RSFSR are to be directly subordinate to USSR Gosnab.

RSFSR Gosnab is to direct and take responsibility for material and technical supply of associations and enterprises under republic and local jurisdiction, including the planning and distribution of physical resources to be centrally allocated to meet the needs of these consumers and also the compiling of balances of products for production and technical purposes produced by associations and enterprises subordinate to RSFSR Council of Ministers to meet the needs of the republic's economy.

The chairman of RSFSR Gosnab is at the same time a deputy chairman of USSR Gosnab.

In order to create the conditions for active participation of local government administrative agencies in matters of material and technical supply, it is deemed advisable that the relevant cost-accounting organizations of main regional administrations of USSR Gosnab supplying physical resources to enterprises under local and republic jurisdiction be kept in their jurisdiction and in the jurisdiction of RSFSR Gosnab.

In view of the particular importance of increasing the efficiency of the system for material and technical supply and of maneuverable and flexible interaction of all its parts under the new economic conditions, USSR Gosnab is to use extensive use of up-to-date computers as the basis for organizing an automated information system for management of wholesale trade and direct economic relations that will guarantee formation of analytical information on the balance between supply and demand of specific products for production and technical purposes and stocks of such products, as well as rendering commercial information services to enterprises and organizations on matters of product supply and sales.

In order to improve organization of the supply of petroleum products to the economy direction of this effort is being made the responsibility of USSR Gosnab, and in this connection it is deemed advisable to abolish the USSR State Committee for Petroleum Product Supply.

In view of the new tasks and functions of USSR Gosnab, its collegium will have a larger role and responsibility, concentrating attention on examining and solving the key problems of organizing material and technical supply under the new economic conditions.

Decisions of the collegium of USSR Gosnab taken within the limits of its jurisdiction are binding on ministries, departments, and other organizations.

USSR Gosnab is to raise the level of supervision of subordinate scientific research and project planning and design organizations, concentrate scientific manpower on interdisciplinary research into the urgent problems of organizing material and technical supply in the context of extensive development of wholesale trade and direct economic relations among enterprises, on the economic and organizational problems of resource conservation, and on creating a mobile and economical commodity-forwarding network. Scientific research and project planning and design organizations associated with USSR Gosnab are to operate on principles of full cost accounting and self-financing in close interaction with the respective complexes under the general direction of deputy chairmen of USSR Gosnab.

A recommendation of USSR Gosnab, cleared with the USSR State Committee for Science and Technology, on formation of the All-Union Scientific Research, Project Planning and Design, and Technology Institute for Secondary Physical Resources within the All-Union Scientific Research, Project Planning and Design, and Technology Institute for Resource Conservation has been adopted in order to strengthen the scientific soundness and systems approach to solving the problems of resource conservation in the national economy.

Guided by the decisions of the 27th CPSU Congress and the January and June (1987) Plenums of the CPSU Central Committee, USSR Gosnab is being called upon to draft and carry out specific measures toward radical restructuring of the effort of personnel selection, assignment, and training and to take steps toward further improvement of the system for their retraining and improvement of their qualifications.

In keeping with the new functions and structure of USSR Gosnab, the staff size of its central headquarters (including the staff of the soyuzglavsnabsbyts, which are being abolished) is being reduced by 40 percent.

COPYRIGHT: Izdatelstvo "Ekonomika", "Materialno-tekhnicheskoye snabzheniye", 1988

07045

### **Role of Gosnab Territorial Commercial Centers Described**

*18200157b Moscow*

**MATERIALNO-TEKHNICHESKOYE**

*SNABZHENIYE in Russian No 3, Mar 88 pp 36-38*

[Article by O. Amurzhuyev, candidate of economic sciences: "The Intermediary's Information Services"; first paragraph is MATERIALNO-TEKHNICHESKOYE SNABZHENIYE introduction]

[Text] Order No 445, entitled "On Creating Commercial Centers in Regional Components of USSR Gosnab," has been issued by USSR Gosnab for the purpose of

broad and universal development of commercial information services and their transformation into one of the principal forms of activity of regional material and technical supply components in developing wholesale trade and direct economic relations among enterprises. Today the journal is publishing an article by an official of USSR Gosplan containing detailed commentary on its basic provisions.

Adoption of the USSR Law on the State Enterprise (Association) is substantially broadening the independence of work collectives in dealing with various aspects of economic activity. Enterprises have been granted broad rights in such very important spheres of activity as the supply of materials and equipment to the production process, retooling and reconstruction, and sales of the products produced. For example, they have an opportunity to independently sell products produced over and above contracts concluded or refused by consumers and organizations for material and technical supply or unused products or products not included in state orders, as well as production waste. All of these products are at the same time intended for wholesale trade and supply through direct orders.

Diminished regulation of conditions for delivery in the procedure for direct long-term economic relations does not essentially change the situation—the consumer, the volume of deliveries, and in many cases the specific product are indicated. The actual fact of its sale is not in this connection a full element for satisfaction of real effective demand, but only the forwarding of stocks allocated to consumers and the execution of delivery orders issued. The money that serves as a medium in the turnover of physical resources only registers the limit-allocations of outlays for production and delivery of the product, which are centrally established.

The situation changes radically when the distribution of means of production is organized without stocks and limit-allocations and also without the accompanying delivery orders, through wholesale trade and on the basis of direct orders. The manufacturing enterprise goes to the customer with his product, whose quality and the consumer demand for which determine the possibility of establishing economic relations for the purpose of sale. Instead of a secondary function, sales becomes one of the most important and principal functions of producers. Before determining what to produce, the enterprise must have clear knowledge as to who the product is to be sold to. Otherwise the turnover of resources is disrupted, and the collective's work does not receive appropriate recognition of society represented by consumers.

A need is arising to develop a new element in economic practice—the study of market demand for the product to be produced, through study of current and prospective needs of the economy for particular products. The participation in this effort of an intermediary who might

render services related to the sale and establishment of economic relations turns out to be advisable both from the standpoint of enterprises and also that of the national economy as a whole.

It is clear that the intermediary's performance of some of these functions related to finding a customer and studying demand as well as advertising the product would be far less expensive for the enterprise.

The intermediary, who would specialize along these lines, will do the work more competently and at lower cost. This has considerable importance as enterprises make the conversion to full cost accounting, which requires thorough analysis of costs and selection of the most economical forms of commodity sales.

But the functions of the intermediary are advisable not only from the standpoint of enterprises and the national economy, they are also economically indispensable, since the manufacturer is not always able to find a trading partner for himself on his own. What is more, the collection and processing of information and knowledge of market demand require efforts and consequently costs which are too great. Second, small-lot demand may in many cases be satisfied only if the material and technical supply component acts as an intermediary in selling the product.

The advisability and indispensability of the functions of an intermediary in distribution of means of production are equally manifested from the standpoint of consumers. As the transition is made to wholesale trade and full cost accounting, the enterprise only determines its requirement and the most economical ways of acquiring physical resources and the forms of their delivery. Here again it is quite obvious that the intermediary can do this job or a part of it more promptly and competently and at lower cost.

Thus as the transition is made to wholesale trade and full cost accounting there is no doubt that intermediaries will have a greater role and importance in the national economy; in most cases they will be material and technical supply organizations. The tasks of supply-and-sales organizations as intermediaries between manufacturers and consumers of a product are undergoing qualitative change. Instead of official bodies establishing economic relations binding on particular entities for the distribution of stocks and limit-allocations and issuing orders for product deliveries, they are becoming entities actively aiding enterprises in choosing a trading partner.

The new qualitative aspect of their work presupposes, first, not one but several alternatives for supply and sale, which affords the consumer the opportunity of choice. Second, the supply component not only proposes alternatives, but also helps the enterprise in choosing the most economical of them. Third, in the context of full cost accounting the services of the intermediary become paid services, and consequently the supply component



bears economic responsibility for them. If the services are not furnished in accordance with the contract, the supply component is now not only deprived of the relevant proceeds, but it must also reimburse all the losses the client has incurred as a result of the failure to render or the poor rendering of the services of the intermediary. And fourth, in the context of wholesale trade the rendering of services as an intermediary inevitably requires a study and knowledge of demand, and this in turn makes it necessary to gather, process, and study a large volume of information. Not only, moreover, from the standpoint of the balance between supply and demand, but also in view of broader economic positions, making it possible to gain an insight into the foundations of that balance.

Whereas in the past the services of an intermediary have not essentially affected the balance between resources and needs, in the context of wholesale trade and expanded independence of enterprises they will have a most essential impact on it. This influence is determined first of all by the manufacturing of new products and their movement into the economy. Advertising, which would be done in the most diverse forms, is becoming a component of the services of an intermediary, a very important component at that.

Consequently, in talking about the services of an intermediary under the new economic conditions we should note not only and not so much expansion of their scale as the new qualitative level, and the main thing is the impact on the balance and adjustment of product distribution, the balance between supply and demand.

The information services provided by the intermediary are a most important element in the entire sphere of material and technical supply. They are distinctive in that they do not consist of acting as an intermediary in the movement of commodities. The essence of the information services furnished by the intermediary consists of providing help to client enterprises in establishing economic relations by seeking out and linking up trading partners, by seeking out customers and manufacturers of goods, and by advertising, disseminating, and selling progressive new products. Information or a completed transaction are the end result of the intermediary's information services.

A decision has been made to set up in the system of regional components of USSR Gossnab a network of fundamentally new organizations—commercial centers—on behalf of more prompt organization of the information services of the intermediary in the country's economy.

The question arises: Why not pass these functions on to supply-and-sales organizations that are now in existence and operation? The reason is that creation of centers whose main function is to provide the information services of an intermediary will make it possible to solve

the problem of their full-fledged development in a purposive way. This is very important since under the decisions of the June (1987) Plenum of the CPSU Central Committee the transition to material and technical supply predominantly through wholesale trade must be accomplished over the 4-5 years.

The Model Statute on the Commercial Center of the Regional Component of USSR Gossnab and the Model List of Services of the Regional Component of USSR Gossnab have been drafted. It is envisaged that the commercial centers will be created within the regional component of USSR Gossnab with its own balance sheet, on a cost-accounting basis, or on the basis of internal cost accounting. Their principal tasks would be as follows:

- the rendering of information services of the intermediary on behalf of establishment of economic relations for the sale of products not including the state order, produced over and above state orders and contracts, and also products which consumers and supply components have refused, the furnishing of information on commission to manufacturers on possible sales opportunities, along with a list of consumers and their requirement for various goods;
- the furnishing of information on commission to consumers concerning possible and optimum ways of acquiring the products they need, along with a list of the product's manufacturers and indication of suppliers located nearby, possibilities of substitution with other products should the product not be available;
- conclusion of economic contracts by order of the product's consumers and manufacturers and supply-and-sales organizations;
- the rendering of services in selling progressive new products and dissemination of resource-saving technologies by advertising them and by organizing demonstration exhibits and consultations;
- the furnishing of information to manufacturing enterprises on the requirement for specific products, which it would determine jointly with supply-and-sales organizations;
- the rendering of the services of an intermediary in selling unused products on a commission basis, in barter transactions, and the distribution of lists of unused products for information purposes on the basis of subscription;
- organization of permanent trade fairs and exhibitions, the leasing to enterprises of display rooms and places in the commercial centers;
- the advertising of new products, their technical characteristics, their most effective uses and possibilities of acquiring them, which it would do as a paid service for manufacturers and supply-and-sales organizations;
- the furnishing of information to supply-and-sales organizations and enterprises on opportunities for purchasing raw materials and supplies from local sources.

The standard documents necessary for setting up the commercial centers, the procedure for adoption and application of rate schedules for services, and the terms and conditions for remuneration of the work of personnel have been drafted.

The commercial centers are called upon to render services to enterprises, organizations, cooperatives, and self-employed individuals regardless of their location. The revenues of the commercial centers are formed from the service charges.

They, of course, have to be furnished computers and up-to-date equipment for storage, processing, and collection of data, as well as the transmission of data. This will make it possible to create the data banks necessary for performing the services they are hired to do. The data bank will contain information on products, the product's suppliers and consumers, and the requirement for the product.

Permanent exhibits and trade fairs, whose principal task is to advertise products, to demonstrate prototypes or display samples, to create the conditions for conclusion of contracts, and also to advertise the progressive know-how and resource conservation would function as a part of the commercial centers.

The commercial center would have its own balance sheet or would be on internal cost accounting and would have fixed and working capital assigned to it, a clearing account and other accounts in the bank, it would enjoy the rights of a juridical person, and it would be guided in its activity by the Statute on the Socialist State Enterprise.

It realizes its revenues by virtue of charges for the information services of an intermediary it renders and also from the commissions it receives from enterprises and organizations it has represented in the sale or barter of unused items, waste from production or consumption, and substandard products.

For those types of services on which pricing authorities have not set markups, discounts, or service charge schedules, the commercial center shall set rate levels independently and shall obtain agreement to them in contracts with enterprises, organizations, cooperatives, and self-employed individuals (in accordance with a list of services cleared with USSR Goskomsen).

The commercial center is to be headed by a director, who bears personal responsibility for performance of the tasks the commercial center confronts. The director is appointed and removed by the superior organization upon representation of its work collective.

The first commercial centers in the country have been created in AzSSR, BSSR, and ESSR Gossnabs, Mosgorlavsnab, Mosglavsnab, and Lenglavsnab.

Along with the creation of regional commercial centers the need is also arising for all-union commercial centers, whose principal task would be to render services in the establishment of economic relations between supply components and enterprises located in different regions of the country.

It is only after all these measures that the integral network of commercial centers will be created and will begin to function, rendering services to establish economic relations both within individual regions and also between them, which will make it possible to bring about the conditions and prerequisites indispensable to development of wholesale trade and direct economic relations.

COPYRIGHT: Izdatelstvo "Ekonomika", "Materialno-tekhnicheskoye snabzheniye", 1988

07045

## MODELING, ECONOMETRICS, COMPUTERIZATION

### Computer Network Proposed for Gossnab

18200158 Moscow

MATERIALNO-TEKHNICHESKOYE

SNABZHENIYE in Russian No 3, Mar 88 pp 32-35

[Article by N. Cherezova, candidate of technical sciences: "On the Basis of Computer Technology"]

[Excerpts] Under the new management conditions the territorial organ, which itself must operate on a cost accounting basis, emerges as a commercial middleman and is obligated to help enterprises to sell material resources, to carry out exchange operations and so forth.

In this situation the flow of information increases sharply; there is a growth in the urgency of developing and introducing automated information-reference and information-advisory systems to prepare for and make decisions related to maneuvering material resources. The functional basis of these systems consists of a complex task presented in the technical assignment. It includes the use of a new information technology for preparing for and making decision with the use of data bases and computer networks, which will enable us to organize real immediate communication between the territorial organ and enterprises.

The development of problem-oriented complexes for immediate management in material-technical supply and the development of the ASU [Management automation system] and NOUT [Scientific-technical management organization] on the basis of contemporary tools of

computer and organizational technology and communications, which was foreseen as part of the scientific-technical program, presupposes the implementation of theoretical and practical elaborations, the result of which is the concept of the immediate management of material-technical supply.

This concept includes a promising variant in the material-technical supply system which has been introduced as a result of the analysis of new economic goals and tasks for USSR Gossnab [State Supply Organization] proposed by the June 1987 Plenum of the CPSU Central Committee, as well as as a result of the thorough systems development of existing prototypes which enable us to design the processes of real economic operations in all links and subdivisions of USSR Gossnab.

In working on the concept of immediate management of material-technical supply and on a technical-economic foundation for developing complexes, we decided not only to obtain the future prototypes of the entire MTS [Material-technical supply] system with a description of goals, organizational structure, an assessment of economic effectiveness and so forth, but also to indicate real practical paths and directions that could be followed to reach the given variant of the system, based on existing work experience.

On the basis of an analysis of the experience of carrying out tasks, the ASU of USSR Gossnab has singled out, as a reference point for the future management system, the tasks related to efficient maneuvering of material resources on a territorial level as the most urgent interdepartmental and interbranch tasks of efficient management.

Of all subdivisions of the USSR Gossnab system, territorial organs involved in material-technical supply have a determining significance in implementing the program of immediate management. The territorial organs provide a tie between supply enterprises and consumers of material resources, with transport organizations, with enterprises involved in product deliveries and with the central apparatus of USSR Gossnab.

In the process of immediate linking-up, an entire complex of problems related to economic, legal, organizational and informational cooperation characteristic of interdepartmental and interbranch management tasks is posed and dealt with.

Today many tasks involving immediate management of material resources are dealt with in the area of data base organization and support, software and hardware. Real and practical results have also been achieved, in particular the experience of developing and introducing the ASU in Leningrad, the Azerbaijan SSR and Tula. An analysis of this experience enabled us to establish the basic reasons that the formation and development of systems for immediate maneuvering of capital are hindered.

The development and effective functioning of these systems was hindered by the absence of suitable volumes available for sale, of exchange of material resources among enterprises as well as of an economic mechanism for interdepartmental cost accounting that would stimulate the enterprise to actively interact with subdivisions of the USSR Gossnab system in the process of finding and selling above-norm and unused material resources.

Since 1987 with the introduction of a normative method for planning reserves and for supplying material resources in wholesale trade there has been a change in economic conditions related to the cooperation of the territorial organ and enterprises found within the territorial organ's operation.

Preliminary results of the analysis of the system for maneuvering material resources and for managing reserves of commodity stock (with a consideration of the transition to the normative method of planning reserves) have enabled us to single out standard tasks related to the search for and making of decisions and to determine the goal and purpose of such systems. One of the regulatory documents was the technical assignment (TZ) regarding the development of these systems. It can be examined in the capacity of methodological material in accordance to which it is possible to implement the development and improvement of the subsystem of immediate management on a territorial level.

In developing the TZ use was made of the existing experience of dealing with tasks of immediate location and maneuvering of material resources existing within the system, of the principles of the normative method for planning reserves, of the ideology for building automated subsystems of the information-advisory type using the new information technology of preparing for and making decisions on the basis of data bases and computer networks.

This TZ and the existing experience of developing systems for maneuvering material resources in view of the urgency of the problem was discussed in Tula at the meeting of the Committee of the Main Designer of the USSR Gossnab ASU on 27-30 April 1987. Representatives of branches, ministries and departments, of the Academy of the National Economy of the USSR Council of Ministers, representatives of territorial organs of USSR Gossnab and the developers of systems for maneuvering material resources were invited to the committee meeting. An analysis was made of the experience of developing a branch automated system for the redistribution of resources in Glavneftemash [Main Administration for Machine Building in the Petroleum Industry] of the Azerbaijan SSR, the Manevr AISS [Automated information system] of Lenglavsnab [Leningrad main administration for supply], the automated system for processing information on total product reserves available in the gossnabs [state supply organizations] of union republics and Priokskglavsnab [Prioksk main supply administration].

The committee noted the importance and urgency of all proposed works and their practical value for the territorial level of USSR Gossnab.

The vitality and practical direction of such systems is confirmed by the analysis of the work of the Azerbaijan system, which is richer in functional content than the other systems presented at the committee meeting.

The automated system developed in Azerbaijan SSR Glavneftemash provides users with an information bulletin board listing supplies and another listing demand for above-norm material resources, as well as a bulletin board of exchange operations. Recommendations are made on improving the numerous exchanges and exchange chains are built.

In this case the apparatus of economic-mathematical modeling and optimization models developed by scientists of the All-Union NII [Scientific Research Institute] on the Problems of Organization and Management (VNIPOU) and the VTs [Computation center] of Glavneftemash were utilized.

In June 1987 120 subscribers were added to the system, including 25 from other main territorial administrations. In other words, the system has clearly grown out of the branch framework and has become interdepartmental and interbranch. At the same time the nomenclature of information bulletin boards issued by the computer totalled 7,000 items. In September 1987 information bulletin boards already listed 17,000 items, and by late November—21,000. The number of subscribers increased to 200. Services to subscribers improved, presuming contact with the computer. In 1 year with the help of this system above-norm and unused material resources worth 8.5 million rubles were drawn into turnover, including surplus and unmounted equipment worth 2.5 million rubles.

The committee approved the proposed TZ and made a motion to conduct a competition for the best system of maneuvering resources, with the goal of accelerating and stimulating these research efforts and the selection of basic units for the introduction of model design solutions.

The aforementioned documents were commented upon and discussed in the preceding issue of the journal MATERIALNO-TEKHNICHESKOYE SNABZHENIYE.

It should be especially noted that the promising variant for the system of immediate maneuvering of resources built into this TZ is based, as has already been noted above, on the use of a new information technology involving data bases and computer networks.

This is a key point at which to develop the concept of USSR Gossnab's ASU and to implement in practice the functional complex of tasks presented in the TZ. The fact

is that at the contemporary level of development of the science of ASU management and formation, the development and introduction of the computer without the parallel elaboration and introduction of contemporary data base organization and support in the form of data bases will without fail result in a blind alley situation in both theoretical and practical terms. Practically speaking this would mean a problem-by-problem approach to the building and operation of the USSR Gossnab ASU, which presupposes a functional informational separateness of design in the different subdivisions of USSR Gossnab and a complexity of design in model draft solutions, resulting in problems regarding the relations between the ASU's of various subdivisions of USSR Gossnab and the impossibility of building the USSR Gossnab ASU as a single integrated system. The absence of network organization in technical supply will lead to similar results.

In the theoretical sense this will mean a lack of vitality, the impossibility of implementing management concepts and systems of economic-mathematical models, which are developed apart from data base organization and support. Thus, the serious and interesting mathematical arrangement of tasks and systems of economic-mathematical models for planning and management were not introduced into practice for many years, as they should have been, in the largest academic institutes of the country, such as the TsEMI [Central Economic-Mathematical Institute] of the USSR Academy of Sciences and the Institute of Cybernetics of the Ukrainian SSR Academy of Sciences due to the absence of data base organization and support.

On the other hand, branch science, branch institutes, the VTs and planning and design bureaus for ASU development have at their disposal all of the riches of economic information, but without possessing serious scientific potential in the area of a methodological analysis of economic-mathematical modeling and without building data bases, they are involved in simple "shovelling over" this rich information, carrying over manual forms of accountkeeping and an elementary analysis of data by computer. Moreover, the calculation of each individual index on the computer is usually called a task although it represents a routine bookkeeping operation.

Thus, the number of tasks calculated on the computer is increasing, but the effectiveness of utilizing the computer for improving the process of preparing and adopting management decisions remains low.

Manual operations, sometimes modified, are often duplicated on the computer, which can even complicate procedures for their practical utilization because the practical worker becomes accustomed over a period of years to traditional manual operations and trusts them more.

The building and manipulation of data bases having a structure that must be built in accordance with the requirements arising from the composition and content of economic-mathematical models, and their building based on the requirement of maximal utilization of real existing information is a variant of the systems approach to improving management of material-technical supply on the basis of utilizing the tools of computer technology and economic-mathematical methods.

The implementation of an efficient and optimal approach to building a system for efficiently maneuvering resources on the territorial level of USSR Gosplan will enable us, with the help of the computer, to develop and propose, within the recommendation regimen, the following basic variant solutions to workers of territorial organs: on drawing material resources into economic turnover, in particular for replenishing normative reserves in industrial enterprises; variants on ways to implement exchange operations with a consideration of exchange proposals on the part of enterprises concerning material resources that are in short supply; and variants on solutions to the problem of immediate regulation of deliveries.

The implementation of the given functional complex of tasks already today provides the opportunity to create real automated systems that enable us to improve the supply of material resources to the region's enterprises and organizations.

Here the ASU design for the territorial level of USSR Gosplan prescribes the configuration for the subsystem of immediate management at other systems levels as well.

At the present time the corresponding supplement to TZ data has been prepared. It describes the content and function conditions of the identified complex of tasks under wholesale trade conditions.

The economic-mathematical methods used to deal with the identified functional complex of tasks are the same whether wholesale trade conditions do or do not exist.

Thus, on the basis of the designs and systems existing today for maneuvering material resources it is possible to create a promising variant of a typical system for wholesale trade on the basis of using new information technology. The subsequent introduction of such systems into the practical work of USSR Gosplan territorial organs will signify a real stage in improving material-technical supply and one of the first steps in building concepts of data base organization and support in interrelationship with other subsystems of the circulation sphere.

COPYRIGHT: Izdatelstvo "Ekonomika", "Materialno-tekhnicheskoye snabzheniye", 1988.

8228



## LIVESTOCK AND FEED PROCUREMENT

### Falsification of Figures in Livestock, Grain Sectors

18240078a Moscow LITERATURNAYA GAZETA No  
19, 11 May 88, p 11

[Article by Leonid Ivanov: "The Artful Figures of the  
Agronomist"]

[Text]Omsk—Not long ago a respected scientist was  
answering questions from a television audience. At the  
end of the program the subject of discussion was agricul-  
tural affairs, and the scientist began to talk about some  
kind of unusual dash forward by the agro-industrial  
complex.

Then a report was published by the State Committee for  
Statistics on the 1987 work results. Let us take a look at  
how our agro-industrial complex operated.

Compared with 1986, production of agricultural output  
increased.... Just think of it—0.2 percent! The number of  
kolkhozes and sovkhozes operating at a loss was more  
than 700, and so compared with 1986 profits fell R1.6  
billion. We might add that the numbers of animals of all  
kinds—cows, hogs, sheep and goats—also dropped very  
sharply.

Hardly a "dash forward"!

But it is not only that scientist who is in raptures about  
the activity of the agro-industrial complex; many people  
are talking and writing about it. They support their  
conclusions with figures. Let us cite them. According to  
reports from the State Committee for Statistics, in the  
past 2 years there has been a noticeable increase in the  
productiveness of livestock, and purchases of meat and  
milk have risen. For example, last year meat production  
increased 0.6 million tons slaughtered weight.

And here the former economist in me woke up: I worked  
once as chief of the planning and economic section in an  
all-union sovkhoz trust. I tried to analyze the published  
figures for the results of 1986 and 1987. And I found  
much that was strange...

From what sources had the purchases of meat and the  
volumes of processing increased? It turns to be mainly  
from fewer head of cattle. Last year the number of cows  
in the country declined by 0.4 million. True, we can  
assume the following: that the kolkhozes and sovkhozes  
had received certain rights of independent action and  
had decided to get rid of low-productive cows, sell them  
for meat and thus improve the purchase figures. And this  
had been allowed by the leadership of the State Agroin-  
dustrial Committee, which, as they say, shrugged its  
shoulders. They had, so to speak, been looking for a  
hatchet and they already had one....

But if culling low-productive cows can somehow be  
justified, how do we explain the decline in the number of  
young cattle? Because compared with 1986, they  
declined 1.2 million. The number of hogs fell 2.2 million,  
the numbers of sheep and goats 1.7 million. It must be  
supposed that they were all used for meat, but their total  
weight, if we consider the actual average selling weight,  
must have been almost a million tons!

Are the merits of the State Agroindustrial Committee  
great here? And what about the "dash forward"?

It is, of course, an extremely tempting path. Perhaps we  
can further reduce the number of cattle and thus  
"improve" the report on meat purchases. But let us look  
ahead a little. Since over the past 2 years the number of  
cows has declined 0.7 million, we shall obtain fewer  
calves. And fewer calves will be brought in for fattening.

We are already in possession of an alarming fact: during  
1985-1986 the number of cows on private subsidiary  
farms fell 0.2 million according to my calculations. And  
the number of young cattle also fell by 0.2 million. And  
this in the midst of a noisy fuss about increasing aid for  
peasant farmsteads!

It is understandable that these 400,000 head of cattle  
improved the report from the State Agroindustrial Com-  
mittee for meat purchases, but instead we have 200,000  
families, deprived of their own cows, who are now  
traveling to stores in the cities to buy meat and dairy  
butter. This is where we find the dash forward! Only not  
in the right direction.

The indicators for milk production also give rise to some  
perplexity. According to Central Statistical Administra-  
tion figures, in 1985 some 98.6 million tons of milk were  
produced in the country (including 22.7 million tons on  
private subsidiary farms), while in 1987 the figure was  
103.4 million tons. This means that in 2 years the  
increase was 4.8 million tons. But which sector is distin-  
guished here: the private sector or the public sector?  
Who should receive the praise?

In the State Committee for Statistics report for last year  
there is no indicator for milk production on private  
subsidiary farms, but the figure was cited in PRAVDA in  
an article entitled "Self-Reliance" (31 August 1987)—28  
million tons. About the same amount of milk was  
produced in 1986 from privately owned cows. These  
figures have been cited in several other press organs and  
no one has challenged them.

But what is going on? If last year the small sector  
obtained as much milk as in 1986, that is, 28 million  
tons, then the larger sector accounts for 75.4 million  
tons. And this is even less than was obtained in 1985!

In general I have tried many times to clarify how milk  
production from privately owned cows is included in our  
statistics. I received different answers in different years.

Most often they reckoned that the productiveness of those cows is considerably less than cows at kolkhozes and sovkhozes, and that therefore in individual periods the milk yield was 1,700 kilograms a year. I objected that I live in the countryside each summer and have traveled about the country a great deal, and I am convinced that the milk yield from privately owned cows is higher than at public farms. The statisticians did not argue with this but they did note that even if the milk yield from the peasants' cows is the same as for cows at sovkhozes and kolkhozes then the proportion of output from the private sector within the total volume of milk production would increase sharply, and this is hardly a positive thing...

At one time the task was set of catching up with and overtaking America in terms of meat and milk production! I remember that at that time the yield from privately owned cows immediately increased noticeably. This can be seen from the reports of that same Central Statistical Administration. Could it be that the time has now come to "shake up" the cow population from the farmstead and force it to work on the "red figures" in the report?

Now, the subject of our daily bread. In 1987 the grain harvest was about 0.5 percent greater than in 1986.

And immediately I hear an energetic exclamation from the people in the agro-industrial complex: "But the weather was bad!"

But I do not recollect any occasion over the last 30 years when words about weather that had favored the harvest were uttered from the dais!

So much for words. The figure for last year's grain harvest—211.3 million tons—reported by the State Committee for Statistics is a direct cause for alarm. Is there not some mistake here, dear comrades? If that much net grain was harvested then obviously there is now no longer any need to buy in from outside!

Twenty years ago I had an article on this subject published in LITERATURNAYA GAZETA (18 December 1968) entitled "Grain and Dust." And at that time our gross grain harvest was determined according to hopper weight—the harvest was regarded as the entire weight loaded from the hopper of the combine harvester—the grain and the seeds of weeds and the chaff. Everything depended on the honesty of the combine harvester operator and the serviceability of the machine. It was common knowledge that the mass unloaded from the hopper almost always had a high moisture content, and in rainy weather this often exceeded the norm by more than 10 percent.

Let me cite some fresher facts. In 1986 in Omsk Oblast after handling the streams of grain arriving from the combines, some eight percent of the initial weight was lost through so-called "dead waste." In 1987 this waste

topped 10 percent. This means that the per hectare grain yield was not 14.4 quintals as reported in the summary reports, but less than 13 quintals.

And during the last season the Omsk people gathered in their harvest much earlier than their neighbors. We can just imagine the great amount of "dead waste" in Krasnoyarsk Kray and in Chita and Kurgan oblasts, where the grain was being harvested in the snow! However, given the procedure that has been introduced for calculating the harvest those oblasts could have come out ahead: the greater the amount of dust and water in the mass cut, the higher the indicator in the summary report. A paradox, and how!

But the trouble is that if we exclude actual dead waste from the harvest indicators we still did not obtain the balance of net grain. There is also "live waste" of 30 percent or more in the grain. The entire weight of this waste is included in the harvest. This waste also makes up a fair percentage.

In that article 20 years ago I talked about the indicators for two neighboring kolkhozes in Udomelskiy rayon in Kalinin Oblast—the "Moldino" kolkhoz and the kolkhoz imeni Kalinin. At that time the Moldino people calculated their harvest using the granary weight, that is, they counted only net grain, while, like others, the Kalinin people used hopper weight. And although they were obtaining less grain per hectare than the Moldino people, the Kalinin people surpassed them because of the hopper weight. And because of this they "engineered" for themselves a challenge banner and a large bonus.

Last year I again visited those farms. Now they also calculate their harvest using the hopper weight method. In 1986 the difference between the hopper weight and the granary weight of the grain reached 25 percent. In that same Udomelskiy rayon there are even "higher" achievements: at the kolkhoz imeni Michurin in individual years the gap between hopper weight and actual weight of the grain has been almost 30 percent!

Of course, the leaders of the agro-industrial complex know about the percentages of "dead" and "live" waste in the total harvest but...

In recent years the difference between hopper weight and actual weight of grain has obviously been growing and the illusion is being created that field productiveness is increasing. If steps of some kind are not taken then the proportion of water and dust in the grain harvest will increase even more. Very many persons are interested in this in all the elements of the agro-industrial complex and the rayon, oblast and even higher leadership. Yes, and for the vehicle operators and specialists and kolkhoz and sovkhoz leaders themselves this hopper weight brings not only moral encouragement but also material blessings.

This is what happens in practice: when drawing up the industrial final plan for the next year each farm writes in the amount of grain it intends to obtain. This same industrial final plan also contains a schedule of expenditures: sales to the state, expenses for seeds and for fattening cattle. All the calculations are done as if for the net amount of grain. These figures are the ones used in the pledges that are adopted. But the plan result is for some reason calculated for hopper weight of the grain, with the waste.

And the contract collectives that enter into agreements subscribe to pledges to obtain a specified amount of precisely that grain. And here the calculation is done using the notorious hopper weight. The members of these brigades are not even interested in how much net weight of grain they actually provide. For usually they are not involved in the handling and drying of the harvest mass supplied from the combine harvesters.

I would like recall the history of this question.

In Stalin's time the harvest indicator was determined from the biological condition of the areas sown: before the start of harvesting specially formed government commissions went out into the fields and assessed the harvest, so to speak, by estimating things mainly by sight: such a field would yield 10 quintals, the neighboring field 15 quintals. In the end the harvest for the current year was announced for rayons and oblasts and

for the country as a whole. And it was always higher than the actual [word illegible]. True, people were paid not for the biological harvest but only for the grain cut, and then the state did not sustain material losses (if we disregard the cost of maintaining the large state commissions).

The question of a more correct calculation of the harvest was first dictated in 1953-1954. At that time, in his public statements N.S. Khrushchev expressed himself in favor of calculating the harvest only from the actual net amount of grain obtained, or as it was customary to say, according to the granary weight of the grain cut. But the leaders of the Central Statistical Administration again succeeded in holding a compromise position: calculate the harvest from hopper weight. This procedure alas! has been retained to this day.

Now the demands are being heard with special force: payment for the labor of rural workers and moral incentive for them should be only according to final results. But what kind of a final product is it that is full of dust and "dead waste"?

Has not the time come for the leaders of the agro-industrial complex to restructure this strange procedure for calculating the grain harvest and to stop deceiving both themselves and us? For in the period of perestroika is it essential to work honestly!

09642

## BUILDING MATERIALS

UDC 666.94:65.012.33

### **Council Examines Cement Industry Retooling** *18210006a Leningrad TSEMENT in Russian No 2, Feb 88 pp 2-4*

[Article by Candidate of Technical Sciences L.N. Grikevich of NIItsement [State All-Union Scientific-Research Institute of the Cement Industry] under the rubric "The Resolutions of the 27th CPSU Congress—To Life!": "Prospects for the Technical Retooling of the Cement Industry—Report on the Session of the Cement Industry Section of the Scientific and Technical Council of USSR Minstroyaterialov [Ministry of the Construction Materials Industry or MPSM]";

[Text] *The chief task of the 12th Five-Year Plan consists of raising the rate and efficiency of development of the economy based on an acceleration of scientific and technical progress, the technical retooling and reconstruction of production, the intensive utilization of existing production potential, the improvement of management systems and the mechanism of economic operation and the achievement, on that basis, of a further rise in the welfare of the Soviet people.*

An acceleration of the renewal of the production apparatus, first and foremost through the more rapid replacement of low-efficiency equipment with progressive and highly productive equipment. A comprehensive inventory of productive fixed capital. A renewal of over a third of physical assets. No less than a doubling of the amount of withdrawal of obsolete productive fixed capital compared to the 11th Five-Year Plan.—(From the Fundamental Areas of Economic and Social Development of the USSR for 1986-90 and the Period to the Year 2000)

Issues of improving and developing new process equipment for retooling the enterprises of the sector were discussed and the progress of work in fulfilling the comprehensive sector programs of scientific-research and planning institutes was considered at the end of 1987 at a regular session of the Cement Industry Section of the USSR MPSM in which the machine builders took part.

VNIItsemmash [All-Union Scientific-Research Institute of Cement Machinery] Director A.A. Polyakov gave a report on the first issue. He stated that raising the technical level of equipment for the cement industry is currently the chief task of the developers of new technology.

The speaker noted that the solution of this problem is impossible without a thorough technical restructuring of the activity of equipment developers. The most difficult thing is to reject the psychology of imitateness, get rid of the practice of copying foreign prototypes and surmount the fear of fundamentally new solutions.

Over the course of the 11th and 12th Five-Year Plans, VNIItsemmash has been working on the creation of new types of process equipment for the technical retooling of the cement industry, and the development of a whole set of machinery for dry-process cement production is underway according to the comprehensive programs of the GKNT [State Committee for Science and Technology].

Four standard sizes of kiln unit for dry-process cement production with productivities of 1,000, 2,000, 3,000 and 5,000 tons/hour have been developed along with crushing and drying installations with 4.6 x 10 m [meters] mills, improved crushing and drying installations with 4.2 x 10 m units and three standard sizes of vertical roller or rotary rolling mills with productivities of 100, 200 and 300 tons/hour.

Work has begun on the creation of equipment for the blending yards: stackers with a productivity of 460 and 740 tons/hour and unstackers for the clay.

All of this equipment is automated using microprocessor technology.

The further assimilation of existing capacity in the sector could generate an additional 10 million tons of cement a year, including bringing the dry-process lines to the planned productivity of 3,000 tons/day. The collective of the Spassktsement PO [Production Association] occupies the lead position in this matter, the planned capacities have been assimilated at the Navoi plant and Krivoy Rog combine and the Rezina Cement Plant has begun to operate well.

Experience in operating the first SMTs-20 dry-process unit in the country with a productivity of 3,000 tons of clinker/day and equipped with a 4.5 x 80 m rotary kiln and a reactor-decarbonizer at the Krivoy Rog Cement Combine testifies to the possibility of increasing its productivity to 3,500 tons of clinker/day.

The speaker noted that the proportionate expenditure of standard fuel in the operation of this unit is too high—121.4 kg [kilograms]/ton—and the fuel consumption for analogous lines abroad is 110-115 kg per ton/of clinker.

The task of reducing power consumption remains topical along with raising the productivity of process lines with 4.5 x 80 m kilns and reducing proportionate metals-intensiveness. It can be resolved via installing a five-stage cyclone heat exchanger (only with low initial moisture content in the raw material), outfitting the unit with automatic monitoring and control systems, improving the burner units in the rotary kilns and decarbonizers and employing more efficient splitters of the pulverized raw mix in the cyclone heat exchanger.

The equipping of the 3,000 tons of clinker/day dry-method process lines currently operating in the sector with reactor-decarbonizers will make possible the output

of an additional 7 million tons of cement a year—this is the fastest way of increasing the share of cement obtained using the dry process.

A.A. Polyakov has proposed the compulsory construction of dry-method blending yards at plants, the building of which is being slowed by Glavtsement and USSR MPSM for economy purposes. The blending yard was not built, for example, in the reconstruction of the Nev'yansk Cement Plant, although VNIItsemmash insisted on its construction.

Also necessary in the cement industry is the reconstruction of a large number of wet-process lines and their conversion to the dry process. Standardization in the reconstruction of the kilns is essential: 4.5 x 170 m kilns should be shortened to 4.5 x 80 m size and equipped with cyclone heat exchangers and decarbonizers, i.e. should be reconstructed into 3,000 tons of clinker/day productivity lines rather than 2,000 tons of clinker/day ones. Kilns with a diameter of 5 m should be reworked into 5,000 tons/day productivity units rather than 3,000, as a consequence of which productivity indicators will increase by 1.5-2 times and the conversion will be profitable.

The realization of these proposals will make it possible to ensure conformity to world technical standards for the equipment of the sector.

This level can be surpassed only via the development and creation of fundamentally new process equipment.

NIItsement has thus developed technical targets and has proposed including in the VNIItsemmash the planning of equipment for continuous-flow technologies without rotary kilns with separate units for heating and decarbonizing the raw mix, a high-temperature granulator, a fluidized-bed reactor for firing the clinker and an original-design cooler for cooling clinker of unconventional granular composition.

An experimental radioactive-chemical installation with a productivity of 1 ton/hour that was developed by Giprotsement [All-Union State Scientific-Research and Planning Institute of the Cement Industry] is being built in Novosibirsk.

VNIItsemmash is working on the creation of roller-press hydraulic crushers, new-design crushers with a high degree of pulverization and original-design rotary roller mills according to the proposals and inventions of its own specialists, as well as the creation of a set of equipment with a productivity of 2-10 tons/hour for mini-plants that could be set up and dismantled easily.

Of course, much attention in the plans of VNIItsemmash should be devoted to the development of innovative designs for machinery, and it is essential to deepen the collaboration of the client organizations of USSR MPSM and the machine builders. Additional design personnel

are needed for this at the institute, however. In conclusion, the speaker once again directed the attention of Glavtsement toward the necessity of issuing VNIItsemmash technical specifications for the reconstruction of existing wet-process equipment and its conversion to dry-process production.

Ye.D. Verich (Kharkov Polytechnical Institute) spoke on a new principle for planning dry-process production lines. He addressed a series of contradictions in dry-process production for cement consisting of the fact that raw materials are first pulverized and dried in crushing and drying installations, and then the dried mixture is transported to silos and cooled, while the heat contained in it is released into the atmosphere in storage.

The speaker proposed the preparation of the raw mix in finely pulverized form, blending, correction and storage in blending yards equipped with a batching unit and a scraping unloader of special design with a track hopper, and then the drying, milling, heating, decarbonization, heating and cooling in a unified drying and milling system.

Similar solutions are already being employed abroad, for example, in the dry process, where the cake that has been dried and milled in a crusher-drier is fed directly into a cyclone heat exchanger.

Roller mills are best for the realization of a continuous technology, from which the dried and pulverized raw mix in the form of a dust-gas stream can be fed immediately into a cyclone heat exchanger.

Taking into account that the speed of movement of the material in a roller mill is an order of magnitude greater than in a kiln, the joining of the separator of the crusher with the kiln is being proposed.

Ye.D. Verich feels that the reliability of the "roller mill—kiln system" link is the same as that of the "kiln—cooler."

The anticipated fuel economy in the employment of the proposed technology is 7,000 tons of standard fuel a year per process line of 3,000 tons/day productivity.

One marked advantage of the continuous technology proposed by Ye.D. Verich is the arrival of the material in the kiln in an activated as well as heated state. The speaker supported the proposal of VNIItsemmash to create equipment for mini-plants.

The necessity of creating and constructing mini-plants in every oblast of our country was pointed out in the presentations of V.I. Zharko (USSR Gosplan), Ye.D. Verich, N.I. Ferens and V.Z. Pirotskiy (NIItsement).

V.Z. Pirotskiy subjected the work of VNIItsemmash to sharp criticism for the lag in the realm of creating separators for equipping milling equipment in the



cement industry and for wastefulness in the expenditure of funds for the development of roller mills already being manufactured in the USSR under foreign license, as well as in the development of roller-press hydraulic crushers for which there already exists finished design and technical documentation developed by NIItsement.

NIItsement Director V.B. Khlusov, Giprotsement Deputy Director Yu.V. Nikiforov, Yuzhgiprotsement [Southern Branch of Giprotsement] Deputy Director A.I. Zdorov and SibNIIProyektsement [Siberian Scientific-Research and Planning Institute of the Cement Industry] Institute Academic Section Chief Engineer V.G. Novosadov spoke on the fulfillment of 1986 and 1987 sector programs.

NIItsement has been charged with methodological support, coordination functions and the execution of operations for the Syrye, Toplivo and Kachestvo programs, and the institute is also taking part in the fulfillment of operations for the Tamponazh and KID programs.

Out of the 69 principal targets of the indicated programs, NIItsement is the responsible executor for 32, Yuzhgiprotsement for 14, Giprotsement for 10 and SibNIIProyektsement for 9.

NIItsement is fulfilling 7 of the principal 19 targets for the Syrye program. The utilization of secondary resources and by-products of the enterprises of Minkhimprom [Ministry of the Chemical Industry] and Minchermet [Ministry of Ferrous Metallurgy] is promising (iron sulfates, steel-smelting slag, magnetic slag, sludges and dusts from ferrous-metallurgy plants), as well as the "tailings" of the enrichment of the KMA mining and enrichment combines in the iron-bearing admixtures.

The widespread application of the indicated by-products is being restrained in a number of cases by their poor transportability and excessively high prices as set arbitrarily by the suppliers. The utilization of TES [thermal electric power plant] ash and cinder by-products as an active mineral admixture, for example the ash waste of the Baltic GRES [state regional electric power plant] to the Akmyantsementas PO [production association], is no less important to the sector.

The clay being utilized can be replaced by up to 60 percent with ash by-products and 20 percent by highly aluminated and high iron-content ash in the central region of the country.

The promise of operating plants using two-component mixtures with ash by-products is alluring.

The experience of the operation of the Podolsk Cement Plant using a two-component mixture revealed the following difficulties: ring formation in the furnace due to the low modulus of the mixture ( $n = \text{about } 1.5-1.65$ ,  $p = 1.0$  or less) and the unstable chemical composition of the

by-products. Blending is thus essential at the ash dumps, but Minenergo [Ministry of Power and Electrification] is not taking on the solution of this problem.

Expanding the utilization of gypsum replacements is being slowed by a shortage of granulated phosphogypsum: the Gomel Chemical Combine has yet to assimilate the planned capacity for the output of the granulated phosphogypsum and has not organized the production of briquetted product.

NIItsement is the main executor for 18 of the principal targets of the Toplivo program.

The practical value of the profound dehydration of slurry is beyond doubt. Notwithstanding the carelessness of execution and the design shortcomings of the commercial-test installation for the preparation of a comprehensive fluidizer, the impact of fluidizing and the possibility of reducing the moisture content of the slurry to 10-12 percent with the application of a comprehensive fluidizer based on Ye-type technical lignin sulfonates and based on LST-MShch1 modified technical lignin sulfonates has been confirmed by commercial testing at the Shchurovo Cement Plant.

Equipment has been manufactured for the reconstruction of this installation. Commercial testing is continuing, and technical specifications have been issued for the planning of installations for receiving, storing and proportioning the fluidizer of the slurry for the Volsktsement and Krichevtsementnoshifer POs, the Chernorechensk Plant and the Balakleya and Amvrosiyevka combines.

The institute is rendering practical assistance in equipping the kilns of the heat-exchanging devices. The application of fuel-bearing by-products as a replacement for 5-6 percent of the basic fuel with petroleum slurry, lignin, acid bitumen or part of the clay from coal slurry has been an efficient method of reducing power consumption for clinker calcination at a number of plants, as has the utilization of technogenesis materials containing decarbonized lime as an additional raw-material stream: the heat of clinker formation is reduced by 7 percent thereby.

The institute has developed a continuous-flow technology with new reactor-type equipment: the raw mix is heated in dispersed heat exchangers, is decarbonized in a thermo-mechanical surge jet reactor, granulated in a high-temperature granulator, heated in a fluidized and flowing bed and the clinker is cooled in a fluid or combined cooler.

Planning documentation has been developed for the realization of the new technology, equipment has been manufactured and the installation of an experimental

2.5 tons/hour installation has begun. The line can be utilized for the construction of a mini-plant. Capital spending for the incorporation of the technology is 20-30 percent less.

A number of sectors of the national economy are ready to become clients for the plans of these plants, but VNIItsemmash has postponed the development of equipment for the lines for an indefinite period of time, and NIItsement is thus developing plans for a mini-plant line for 10 tons/hour by itself.

Mobile small-capacity milling installations are required for construction in the regions of the Far North, Far East and the mountainous regions of the country. The institute has developed design documentation for a mobile milling installation with a small jet mill and a roller-press hydraulic crusher. NIItsement is prepared to transfer it to the Volgotsemmash PO.

The implementation of the Tsement-90 comprehensive program is planned to increase the quantity of admixtures introduced into combined cements, i.e. at the necessity of the fine pulverizing of the clinker components and the combined cements, while the equipping of cement mills with separators is being accomplished exceedingly slowly: the Volgotsemmash PO is not manufacturing them.

NIItsement is developing intensifiers for milling and activators for solidifying in order to obtain 500-, 550- and 600-type cements. A new generation of primers based on aluminosilicates of sodium and urea-formaldehyde resins is being created.

Giprotsement is carrying out work under the Toplivo and Syrye programs and is inspecting the cement plants within the framework of the fulfillment of the Kachestvo program.

According to the Toplivo program, this institute is developing a system for the preliminary decarbonization of materials in the kiln-area heat exchanger of the unit with a productivity of 3,000 tons of clinker/day. A plan has been developed and the installation has been accomplished of a system for the preliminary decarbonization of material at Kiln No 1 of the Novospasskiy Cement Plant. The system has been placed in operation and is carrying out the refinement of unit operating modes for increasing the share of combustible fuels to 20-25 percent.

The first domestic system for the combustion of additional fuel with a mine-cyclone heat exchanger has operated at Kiln No 3 of the Katav-Ivanovsk Plant since 1985 and has made possible an increase in the productivity of the 4 x 60 m unit from 35 to 50 tons/day and a doubling of the life of the lining. Planning and design documentation for the reconstruction of Kiln No 2 with

a mine-cyclone heat exchanger and a combustion system for additional fuel is being developed. The kiln unit is planned for operational start-up in 1990.

Giprotsement has developed a blueprint for the reconstruction of Process Line No 7 at the Sebyrakovo Plant with a 5 x 185 m kiln and its conversion to a semi-dry process.

Research is being conducted on the filterability of the slurry. Technical documentation for imported equipment being delivered is being translated into Russian (in conjunction with NIItsement) and studied.

Work is underway on improving the pulverizing process in dry self-pulverizing mills via the planning of a recirculation system for fine granules in the unit and conversion to a closed operating cycle for the 4 x 13.5 m recrushing mill apropos of the conditions of the Novospasskiy Cement Plant.

The institute is developing a new domestic system for the homogenization of the raw mix in two-decked 18-m silos that include an air-bottom and automatic air-blowing machinery.

The Stromoborudovaniye [Building Materials Equipment] Administration of USSR Ministroydormash [Ministry of Construction, Road and Municipal Machine Building], in conjunction with VNIItsemmash and the Krasnogorsk PO, has developed technical documentation for a commercial series of domestic systems for the homogenization of a powdered mix apropos of the new 3,000 tons/hour process lines being constructed at the Ararat, Navoi and Nevyansk cement plants.

A technological process for obtaining 400-brand cement using low-base clinker with a KN of about 0.80-0.83 and an activeness of 45.0-47.0 MPa [megapascals] has been incorporated at the Ulyanovsk Cement Plant.

The productivity of the kiln has increased by 3-4 percent, and fuel consumption has declined 7-8 percent.

Work is being done at some plants in the utilization of acidic fly ash of various TESs and GRESs as an active mineral admixture to cements. Fly ash and ash from the ash dumps of TESs and GRESs is expediently utilized at cement plants from an economic point of view only when there is a reduction in the contract prices for these by-products and installations are constructed at GRESs and TESs for dehumidifying and shipping ash from dumps within a short shipping radius.

Giprotsement had done work for many years for the Katav-Ivanovsk Cement Plant in the creation of a kiln unit with a productivity of 1,500 tons/day with a domestic self-contained decarbonizer and a system for bypassing exhaust gases. This work has been curtailed due to a lack of capital investment for the construction of the new facilities.

The institute has developed a new, original and economical technology for converting plants from a wet to a semi-dry process for cement production, and its realization was planned at the Akmyantsementas PO. Work was halted in conjunction with the decision of Glavtsement to convert the Akmyantsementas PO from a wet to a dry production process.

Glavtsement was limited to half measures in resolving issues of equipping the dry-process kilns with preliminary decarbonization systems. At the same time, it was resolved to convert all wet-process plants projected for reconstruction to the dry production process.

Yuzhgiprotsement is conducting operations under the Toplivo (8 principal targets), Syrye (5) and Kachestvo (2) programs.

The development of remote-controlled fuel-oil burners, which have been incorporated on the 5.6/5.0 x 135 m kilns of the Bolshevik Cement Plant of the Volsktsement PO, has been completed under the Toplivo program.

Installations utilizing secondary heat have been incorporated on some of the rotary kilns.

The R-Calclination technology has been developed, and a whole set of preparatory operations has been carried out for its commercial-test incorporation on the large-diameter dry- and wet-process rotary kilns.

It is essential to create a system of state orders that should be financed by USSR Ministroyaterialov. The proposals of institutes should be accepted on the basis of state orders. The coordination of scientific-research operations must be accomplished on a new organizational basis by an institution that has authority, possibly as scientific-production association.

SibNIIProyektsement is occupied with the question of utilizing the ash from the Kansk-Achinsk Fuel and Power Complex (it is striving to impart technological feasibility to the ash) as well as the incorporation of phosphogypsum, borogypsum and titanogypsum at eastern plants. The problem of granulating sulfate-bearing by-products has yet to be solved: Mintsvetmet [Ministry of Non-Ferrous Metallurgy] and Minkhimprom cannot come up with the funds to construct granulating installations.

Zeolite rock has proven to be an effective admixture, and its introduction into the cement raises its strength by 5-8 MPa. The zeolite field, however, is under the purview of Minugleprom [Ministry of the Coal Industry], which has set an inordinately high price for a ton of this aluminosilicate—50 rubles.

The institute is incorporating heat utilizers using pipe installed in grate coolers.

A technology for the preparation and combustion of high-ash blind coal has been devised at the Teploozersk Cement Plant.

A.G. Betskov (Technical Administration of USSR Ministroyaterialov) reported that beginning in 1988, the planning of budget appropriations for the upkeep of scientific organizations according to the base method is being abolished. Budget funding in the estimates of scientific-research institutes will be envisaged and accounted for separately for each specific topic.

It is proposed to support work on the most important theoretical research in the creation of fundamentally new technologies, equipment and materials using budget funding.

The Technical Administration is proposing to organize a competition of theoretical developments consisting of no less than 20 percent of all the work of the institutes. Each institute will have to defend its own advanced developments.

The ministry will also finance from centralized funds, aside from this advanced development, work included in statewide and sector programs according to non-state orders.

B.V. Alekseyev (Glavtsement) noted in his presentation that there will be basic disruptions in the fulfillment of sector programs by the institutes in incorporation. The first stage of incorporation is the development of technical documentation. If Glavtsement has developed an interesting and economical technology for the conversion of the kilns of the Akmyantsementas PO to a semi-dry production process, it could be considered that the ministry has reserves of new work that could be incorporated in the near future with the availability of capital investment.

A plan for the technical retooling of the sector for the next five-year plan has been developed in which the mutual relations with the machine builders have been reflected. Ministroydormash has approved a program of scientific-research operations of VNIITsemmash in which the development of equipment for new technologies for the institutes has been taken into account.

The chairman of the section, Doctor of Technical Sciences and Professor T.V. Kuznetsova (MKhTI [Moscow Institute of Chemical Technology] imeni D.I. Mendeleev) made the proposal to organize a group of experts from among the supervisory workers of the ministry and leading specialists of the scientific-research institutes to monitor the theoretical and promising work of the sector institutes for the purpose of selecting the most important of them for budgetary financing.

COPYRIGHT: Stroyizdat, zhurnal "Tsement", 1988

**New Scientific-Production Association Created**  
*18210006a Leningrad TSEMENT in Russian No 2,  
Feb 88 p 23*

[Unattributed article: "A New Scientific-Production Association"]

[Text] In accordance with a decree of USSR Gosstroy [State Committee for Construction Affairs] and by order of USSR Ministroymaterialov [Ministry of the Construction Materials Industry] of 4 Dec 87, the Soyuzstromekologiya Scientific-Production Association [NPO] has been created in Novorossiysk as the lead organization in the realm of environmental protection and labor safety, and it is directly subordinate to the Ministry.

The composition of the association includes: NIPIOT-strom [Scientific-Research and Planning Institute for Cleaning Structures, Safety Equipment and Labor Safety in the Construction Materials Industry] (the lead organization of the association); the Novorossiysk Experimental-Test Plant; the Novorossiysk Energoremont [Power-Equipment Repair] Administration and the Novorossiysk Planning, Design and Technological Bureau (SPKTB).

The principal areas of activity of the Soyuzstromekologiya NPO are:

—accelerating scientific and technical progress in the realm of protecting the environment and labor safety at the enterprises of the Ministry;

—conducting scientific-research, planning and experimental-design work in the creation of new and highly efficient equipment and technology in the realm of protecting the environment and labor safety;

—preparing and organizing the series production of highly efficient dust- and gas-collection equipment along with equipment for inspection, technical diagnostics and the automated control of technological processes in gas and dust collection;

—conducting planning and investigative work, rendering technical and scientific methodological assistance to sector enterprises in the installation, set-up and assimilation of new and highly efficient gas- and dust-collection equipment and improving environmental-protection activity; and

—coordinating and carrying out work within the framework of international collaboration on issues of organizing joint research and cooperation in the production of equipment for environmental protection and labor safety.

COPYRIGHT: Stroyizdat, zhurnal "Tsement", 1988

12821

## PRODUCTION

### Industrial Production Successes, Shortfalls Detailed

18230021 Moscow VESTNIK  
MASHINOSTROYENIYA in Russian No 3, Mar 88  
pp 3-4

[Unattributed article: "Accelerating the Rate of Economic Development—An Essential Condition for the Fulfillment of the Five-Year Plan"]

[Text] "... Restructuring gathers full force only when it profoundly stirs the national economy."—(From the speech of M.S. Gorbachev "October and Restructuring: The Revolution Continues")

Positive shifts in the economy of our country have begun to transpire as a result of the intensive labor of the Soviet people on the fulfillment of the resolutions of the 27th CPSU Congress, the practical incarnation of the strategic policy of the party of accelerating socio-economic development and realizing the directives of the January and June (1987) Plenums of the CPSU Central Committee on the democratization of all walks of life in society and the implementation of radical economic reforms.

The results of the fulfillment of the State Plan of Economic and Social Development of the USSR in 1987 as presented in the report of USSR Goskomstat [State Committee for Statistics] testify to a growth in the efficiency of social production, the strengthening role of intensive factors in the operation of the economy and the social thrust of economic development.

The volume of product output and labor productivity in industry grew in accordance with the projected rates. The fuel-and-power and metallurgical complexes worked steadily, and the renewal of machine-building products was accelerated. The proportion of funds directed toward the technical retooling and reconstruction of existing production increased in capital construction. For the first time in many years, the entire increase in production was provided through growth in labor productivity without increasing the number of workers engaged in the sectors of material production.

At the same time, national income was 600 billion rubles in 1987 (in actual prices), which was 13 billion less than planned. The underfulfillment of the plan for growth in national income was caused first and foremost by the slow reduction of materials-intensiveness in social production, the lag of the rate of increase of agricultural-goods production, reductions in foreign-trade receipts, the insufficiently active alteration of the structure and increases in the volume of consumer-goods production.

The gross national product, calculated using UN methodology and reflecting final results in both the productive and non-productive spheres of activity, increased by 3.3 percent compared to 1986.

The rate of increase of industrial production was 3.8 percent, which corresponds to the plan. Overall industrial production was 870 billion rubles, which was 32 billion greater than in 1986. The plan for product sales taking deliveries into account was 98.3-percent fulfilled. Some 23 percent of the enterprises and associations committed violations of contract discipline. The increase in labor productivity was 4.1 percent. Profits increased and the cost of industrial production declined, but individual ministries and departments did not fulfill targets for reducing this indicator. The share of unprofitable industrial enterprises was about 13 percent.

Research and development in priority areas of scientific and technical progress were conducted in 1987. Over 3,000 prototypes of machinery, equipment, devices, instruments and automation equipment were created along with 322 automated planning systems.

Progressive forms of integrating science and production were developed. There are currently about 500 scientific-production associations and 23 intersector scientific and technical complexes operating in the country, and over 70 economically accountable centers for the scientific and technical creativity of youth have set to work.

Some 300 flexible production systems, 16,000 NC [numerically controlled] metal-cutting machine tools, over 300 rotary and rotary-conveyor lines and 11,000 industrial robots were installed at industrial enterprises in 1987. Some 6,000 line sections, shops and production lines were converted to comprehensive mechanization and automation. The output of progressive equipment increased, including by 1.9 times for NC press-forging machinery, 1.5 times for rotary and rotary-conveyor lines for machine building and metalworking and 1.2 times for computer equipment for scientific research. The production of over 4,000 new types of products was assimilated and begun, including the series output of new flexible production modules, automatic lines for mechanical machining and die-forging production, ZIL-4331 diesel trucks and the VAZ-2109 front-wheel-drive motor vehicle. New types of polymer membranes were created for the sectors of the agro-industrial complex, biotechnology and medicine along with the production of especially pure chemicals for microprocessor and electronic equipment.

The machine-building complex surpassed the planned rate of product-output renewal overall. At the same time, the increase in products for the complex overall was 4.6 percent, which is 1.3 times less than that envisaged by the yearly plan. The targets for the production of the most important types of machine-building products were not fulfilled. USSR Minstankoprom [Ministry of the Machine Tool and Tool Building Industry] lagged considerably behind the plan for the output of metal-cutting machine tools and press-forging machinery, and USSR Minelektrotekhprom [Ministry of the Electrical Equipment Industry] lagged in large electrical machinery and



alternating-current electric motors, while USSR Minavtoprom [Ministry of the Automotive Industry] trailed in roller bearings. USSR Minkhimmash [Ministry of Chemical and Petroleum Machine Building] had a large shortfall in the production of chemical equipment, as did USSR Mintyazhmash [Ministry of Heavy and Transport Machine Building] in rolling equipment and continuous blanks-casting machinery. The output of equipment for the light and food industries and railroad transport was not ensured in the planned amounts. USSR Minpribor [Ministry of Instrument Making, Automation Equipment and Control Systems] did not fulfill the targets for the output of medical equipment and spare parts for it. The targets for the production of over 2/3 of progressive and highly efficient types of products were not fulfilled.

Contract obligations for product deliveries were 96.2-percent fulfilled, while 56 percent of machine-building enterprises did not fulfill contract obligations, as a result of which over 3.7 billion rubles of products were under-delivered.

The enterprises of the metallurgical complex fulfilled the plan for the production of the principal types of output of ferrous and non-ferrous metallurgy. For the first time in recent years, they were able to increase the production of rolled metal, pipe and metal items with practically no increase in the extraction of iron ore and the production of iron and coke. At the same time, the output of products in the assigned product mix and, first and foremost, of highly efficient types of equipment was not ensured. The plan was fulfilled for only six of 25 types of such products. The plans for the production of furnace steel, cast blanks using continuous-casting machinery, cold-rolled sheet and cold-rolled sheet stainless steel, high-grade cold-drawn steel and high-strength pipe for petroleum applications were not fulfilled among other products, which made it impossible to ensure the fulfillment of contract obligations.

The introduction of state acceptance on a broad scale was the most important factor altering the working conditions of industrial enterprises in 1987. This step without doubt facilitated a rise in requirements for observing technological discipline and product quality. The organs of state acceptance did not accept about 8 percent of the products at first presentation in industry overall. Some 53 million rubles of products were ultimately rejected. In a number of cases, the enterprises operating under conditions of state acceptance underfulfilled the plan, while those operating in the old fashion overfulfilled it. It is far more advantageous for the national economy, however, to receive, for example, 99 percent of high-quality products than 107 percent of poor-quality ones. The sphere of activity of state acceptance will be extended to enterprises in the machine-building and construction complexes.

The intensive target for the economy of fuel and power resources was fulfilled in 1987. Over 16 million tons of fuel and power (in standard units), 2.1 million tons of

rolled ferrous metals and 8 million cubic meters of timber and forest products were economized, while about 145 million Gcal of secondary heat sources were utilized. The increase in requirements for fuel and power resources was 43-percent met through economizing them, while the increase in the needs of the machine-building complex for rolled ferrous metal was almost completely met in that manner. The utilization of various types of secondary raw materials increased.

The transition to multiple-shift operations in industry continued. An economy of the labor of 2.4 million people was ensured through a rise in the productivity of social labor. The team form of labor organization was further disseminated.

Measures were implemented in accordance with the resolutions of the June (1987) Plenum of the CPSU Central Committee for the radical restructuring of economic management. Some 2,500 associations and enterprises in industry were operating under conditions of full economic accountability and self-financing in 1987. The fulfillment of the product-sales plan with a regard for contract obligations was 98.7 percent for these enterprises, and was higher than for industry overall. The enterprises operating under conditions of self-financing made more efficient use of labor resources, ensuring higher labor productivity with reductions in the number of workers. The decline in production expenditures is proceeding at a higher rate at these enterprises. The advantages of the new mechanism of economic operation, however, have yet to be fully realized. A number of enterprises operating under the new conditions have not completely fulfilled their obligations to their consumers.

The implementation of measures to protect the environment were continued in 1987, and more than 10 billion rubles were spent on it (including spending on the maintenance of timber).

The realization of a number of plans that do not correspond to ecological requirements was curtailed, including the construction of the Daugavpils GES [hydroelectric power plant], while the monitoring of the implementation of additional measures to improve the protection of the environment in the regions of lakes Baykal and Ladoga was strengthened. The discharge of harmful substances into the air from stationary sources declined by 2 million tons; the need for water from natural sources was reduced considerably as a result of the operation of existing systems for the return and repeat utilization of water and the start-up of new ones. The state of affairs in the protection of the atmosphere has at the same time not improved in a number of cities with strained ecological situations, and discharges of harmful substances into the atmosphere and accidental discharges of polluted sewage water were committed at individual enterprises.

The results of the fulfillment of the State Plan for the Economic and Social Development of the USSR and the USSR State Budget for 1987 were discussed at a session of the USSR Council of Ministers on 22 Jan 88. The members of the government of the USSR also considered the economic situation of the country and determined the tasks for the fulfillment of the plan and the budget for 1988.

The USSR Council of Ministers pointed out the necessity of providing for a rate of economic growth in the current year that would surpass the average annual rate for the 12th Five-Year Plan and of striving for the steady and rhythmic operation of associations and enterprises, thereby creating the possibility of the successful fulfillment of the five-year plan overall. The large-scale conversion of associations and enterprises to the principles of full economic accountability, self-financing and self-management is essential, along with a rise in their independence and enterprisingness and the maximum utilization of the conditions created in connection with

the entry into effect of the USSR State Enterprise (Association) Law for this purpose. The requirements of this law should be fulfilled unwaveringly and with the greatest possible return so as to confirm economic methods of management in practice. Taking into account the fact that 60 percent of industrial output should be produced by associations and enterprises that have been converted to the new conditions of economic operation as of the beginning of this year, the execution of this work takes on especial significance.

The efforts of labor collectives should be aimed at ensuring the efficient operation of all sectors of production so as to greet the 19th All-Union CPSU Conference with lofty achievements.

COPYRIGHT: Izdatelstvo "Mashinostroyeniye",

"Vestnik mashinostroyeniya", 1988

12821

## MOTOR VEHICLES, HIGHWAYS

### 'OKA' Plant Location Debated

18290112a Moscow IZVESTIYA in Russian  
5 May 88 p 2

[Article by A. Blokhin: " 'OKA' Seeks Home: Where to Build New Large-Scale Motor Vehicle Manufacturing Plant for Soviet Mass-Consumption Minicar?"]

[Text] Togliatti—The great number of articles on the Oka—the new subcompact minicar—have aroused a great deal of interest. The economical, compact and quite accessible car has become the dream of hundreds of thousands (if not millions) of people. Only the miserly production runs—20,000 per year at the Volga Motor Vehicle Plant in Togliatti and the same number at KamAZ [Kama Motor Vehicle Works] in Naberezhnyye Chelny—are perplexing. Some 10,000 more—specially equipped for invalids—are being produced at Serpukhov. The Oka obviously needs a large plant, which is exactly what the enterprise will be.

An Oka plant needs to be built in Togliatti; VAZ [Volga Motor Vehicle Works] general management specialists are united on that point. They have a good many arguments on their side: the minicar was born and took its first steps here. The Volga Motor Vehicle Works, having mastered the advanced motor-vehicle building school has, in essence, practically eliminated one of the most crucial problems for its younger colleague, i.e., the provision of a skilled work-force. The AvtoVAZ Association's engineering center will be keeping tabs on the preparation of the new model for large-series production, and plans to develop an entire line of minicars with various body configurations (sedan, all-purpose), and it has also been proposed that a four-wheel version of the Oka—a mini all-terrain vehicle—be developed.

What sort of picture does the Oka plant present? When the VAZ was being built, a production modulus of 220,000 motor vehicles per year was considered to be economically justified. This is precisely the number of vehicles now rolling off the main conveyor of each of the Volga Motor Vehicle Works' production lines. At present, the productivity of the equipment (flow lines, automatic complexes, etc.) has made it possible to raise the "measuring rod" to 300,000 cars per year. This is how the modulus for the Oka was chosen. Thus, the first phase is for 300,000, the second for 600,000, with a prospective expansion of the enterprise to a yearly output of 900,000 minicars. Obviously, we are no longer talking about 40,000 units per year, and the potential Oka buyers are not threatened with remaining potential buyers for decades.

The Volga Motor Vehicle Works was built in accordance with an engineering plan developed by the Italian firm Fiat. The engineering plan for the new plant is being developed by Soviet engineers, who gained the experience they needed in Togliatti. However, the possibility of

building and equipping a new large-scale enterprise all by ourselves does not altogether mean that the Soviet side is rejecting mutually advantageous collaboration. Negotiations concerning the setting up of a joint enterprise are under way with a number of foreign firms. The co-owner firm will receive its share of motor vehicles (according to its contribution). These are extremely advantageous conditions. As economic research conducted in recent years has shown, the world demand for minicars has once again undergone a sharp increase. Right now, it's true, this phenomenon has nothing to do with the fuel problem: masses of young people are beginning to prefer cars over motorcycles. In France, for instance, the Citroen-2C, which the French themselves call "the funny duck", sells like hot cakes. Young people, who are not burdened with conventions of prestige, need an inexpensive and sufficiently reliable motor vehicle. The Oka promises to be just that.

How soon can these intentions be transformed into reality? The target time period for getting the first modulus produced is 5 years, if...we at least find solutions to two problems unrelated to setting up large-series minicar production, which will determine whether the Oka is to be or not to be produced in the new numbers. First of all, the plant cannot be built without a substantial increase in the capacities (almost 2-fold greater industrial construction capacities) of Kuybyshevgidrostroy [Kuybyshev Hydraulic Engineering Construction Administration], the general contracting organization. And they cannot possibly do this using their internal reserves.

Not long ago, after some sharp criticism regarding the progress of construction of a tractor plant in Yelabuga, the suggestion was made that the plant be retooled to produce the Oka. But other opinions were heard. Our country produces several times more tractors than the United States, and the problem of tractor shortages has nothing to do with the increased production of new cars, but more with improved operation of the existing tractor stock. Isn't it better to interrupt the construction period in Yelabuga, and relocate the freed construction subdivisions to Togliatti?

The second problem has to do with allied subcontractors. They have supported the developers of the Zhiguli for more than one year on starvation rations. We can't think about the new plant operating successfully until this problem is solved.

Voicing the opinion of the CPSU city committee, S. Turkin, its first secretary, came out decisively against locating the large Oka production plant in Togliatti. Expounding the point of view of the people's deputies, Gorispolkom Chairman A. Dubtsov and Chief State Sanitary Inspector V. Drobyshev have declared their solidarity with Turkin. And their arguments must not be ignored. Directors of organizations which have been called upon to see, first of all, to the implementation of the young industrial center's social program, are fully

justified in sounding the alarm regarding the unhealthy imbalance of industrial construction with the construction of housing and cultural and domestic facilities. If the average for the country is 30 square meters of industrial construction per capita, this indicator is 83 square meters for Togliatti. In order to implement the social program for providing the citizens of Togliatti with housing by the year 2000, we need to start making 460,000 square m of living area available per year immediately, but in reality, 80,000-100,000 square m less is being turned over. The Palace of Culture was finally finished only last year, and the reinforced concrete skeletons of a high-rise hotel and the plant management building have stood unchanged for over 10 years. The board of directors of the gigantic plant which has produced 11 million motor vehicles, still occupies one of the buildings...of a polytechnical institute.

In turn, departments which have nothing to do with motor vehicle building are showing interest in Togliatti. A large chemical plant and plant buildings of other ministries' enterprises have been erected on the Avtoograd city limits. And they have conducted themselves like outspoken boarders, acting with total disregard for the city's development. And they still maintain this stance. Last year a decree on expanding the Volgotsemash Production Association was adopted. No one has inquired as to the city Soviet's opinions about this. And it is not a matter of the ambitions of the local authorities. Minstroydormash [Ministry of Construction, Road and Municipal Machine Building], with which the Bolgotsemash Production Association is affiliated, has reduced the amount needed for housing and social and domestic facilities and for full-scale planning of the enterprise's expansion by roughly one-fourth. The discrepancy here is obvious, but they have shut their eyes to it.

According to the general plan, Togliatti should have 750,000-810,000 residents by the year 2000. The construction of the Oka plant will bring the city's population to a million. A large city is more complicated and difficult to maintain, and has greater difficulty providing ecological well-being. If the absence of the Oka plant would require increasing the capacities of Kuybyshevgidrostroy 1.5-fold to implement the social program, bringing the Oka plant here would require a 3-3.5-fold increase. What will be used to make up the shortage in construction potentialities? It remains an open question.

12659

#### **Road Accident Statistics Detailed**

18290110a Moscow IZVESTIYA in Russian  
28 Apr 88 p 6

[Interview with USSR Deputy Minister of Internal Affairs Boris Kuzmich Yelisov, conducted by Ye. Shestinskiy, under "From Competent Sources" rubric: "Protection From Accidents"]

[Text] Every day roughly 700 motor vehicle accidents occur in our country. Over 100 persons are killed and over 700 injured, with some 50 persons left as invalids. Traffic

accidents are the primary cause of death for people between the ages of 5 and 40 years. The accident rate level and the seriousness of accident results in the USSR are 3-fold higher than in countries with a developed motor vehicle-driving history. Every year about 1 million motor vehicles and other units of transport equipment are damaged in accidents. And these alarming statistics demand that we find a radically new approach to solving this important social and economic problem.

The USSR Council of Ministers recently adopted a decree containing measures aimed at ensuring safe travel in motor vehicle and railroad transport. We asked USSR Deputy Minister of Internal Affairs Boris Kuzmich Yelisov to discuss this with us.

[Question] Today, when glasnost and democratization have spread into all areas of our lives, our traffic accident rate indices have also become public property. What could you say to the readers about them?

[Answer] In the last 5 years 214,900 people died in road-transport accidents, and 1.3 million were injured. Last year the number of highway accidents increased by 2.2 percent, the number of people killed increased by 2 percent and the number injured by 2.9 percent.

The figures on losses on our roads are really very alarming. The point is that these losses were not caused by a single, and not even by several, so to speak, partial reasons, but by a huge mass, an entire complex, of reasons. I refer here to the condition of our roads and motor vehicles, the training and discipline of our drivers and pedestrians, the attitude of various organizations to their own transport facilities, and the way travelers and the entire society perceive the situation which has come about. As you see, this is not a narrow departmental problem, but a state and national problem. And in order for the people to see the problem and take part in solving it, they need to be aware of the actual state of affairs and the statistics on highway transport accidents and their consequences.

The existing situation can be explained first of all by the absence of an integrated approach to solving the problem of ensuring safe road travel, the poor scientific study of the forms and methods used to combat the accident rate, and by the serious shortcomings, both locally and in ministerial and departmental apparatuses, in organizing the work to prevent accidents. The measures which have been planned have almost no interface with the plans for economic and social development of regions or the economic activities of enterprises and organizations.

[Question] Boris Kuzmich, did the reasons you cited also become grounds for adopting the decree?

[Answer] Without a doubt. Can you really go along with the fact that traffic safety services have been set up in only 30 percent of the ministries and departments? Or, for example, with the fact that our country has no

operative system for occupational selection of driver candidates or for rendering first aid for people injured in traffic accidents? Our educational institutions are still functioning poorly, and there are a great many shortcomings in the way the problems of raising the occupational skill-levels of drivers on all levels are being solved.

The mass information media, including IZVESTIYA, have repeatedly raised the question of the poor quality and small amounts of road-marking materials manufactured in this country. This is why the government has set specific deadlines on finding solutions to a great many other important problems in accordance with present-day requirements.

[Question] But this is in fact not the first decree aimed at accident prevention. How is it basically different from prior documents?

[Answer] The decree adopted by the government eliminates the narrow departmentalism which is still evident in problem-solving, strengthens the interaction of state and public organizations, and makes use of available organizational and administrative reserves and material and technical resources.

The decree's main innovation lies in its integrated approach. The government resolution opens the door to setting up an effectively operating all-union system for ensuring highway safety. Councils of ministers and corresponding ispolkoms of soviets of people's deputies will develop territorial programs for the period up to 1995, and ministries and departments will develop similar sectorial programs for the same time period. These programs will be mutually coordinated.

[Question] The decree mentions that the so-called "human factor" plays a major role in the provision of safe road travel: in fact, 80 percent of road accidents are in one way or another caused by the people doing the traveling.

[Answer] Certainly, today's main problem has to do with educating people, instilling in them habits of safe behavior on our streets and highways and with unfailingly observing traffic regulations. The government decree reflects these questions as well.

Starting with the next academic year, a special program of classes is to be provided for school children from the 1st through the 7th grades. The program includes training in bicycle riding and moped operation. An education program is to be organized for practically the entire population to teach them traffic regulations. We will conduct this program in schools, workplaces and in people's homes. Specific measures have been stipulated for improving the quality of the training and retraining of our driving personnel.

All these measures are being supported by allocations of material and technical resources, and the necessary educational base is being expanded.

[Question] These days, technical progress is authoritatively encroaching on all areas of our lives. What sort of technical innovations await us in the period ahead?

[Answer] Provision has been made for a complex of measures aimed at coordinating the design of transport equipment with international safety requirements, at improving traffic conditions in our cities, on our motor vehicle roads and our railroad crossings. Particular emphasis has been put on eliminating highway accident danger points, on using computers and on installing accident-notification communications equipment on main highways.

For instance, portable equipment for self-monitoring alcoholic intoxication is going into series production, and will be available to everyone driving transport equipment. Special equipment designed to greatly enhance so-called "passive safety", is being manufactured for motorcyclists.

[Question] You have talked only about the role played by state organizations. But the cooperative movement is now expanding. Can cooperatives make their own contribution?

[Answer] We hope so. Motor vehicle repair and driver education cooperatives already exist. In the final analysis, these activities will promote traffic safety. While, unfortunately, there are still only isolated cases, which are well worthy of attention, of cooperatives being set up to improve the driving skills of passenger car and motorcycle owners.

[Question] It is common practice to identify the work being done to make road travel safe with the activities of internal affairs organs, mainly Gosavtoinspektseyey [State Motor Vehicle Inspectorate]. Is this correct?

[Answer] The GAI MVD USSR [USSR Ministry of Internal Affairs State Motor Vehicle Inspectorate], which is a special-purpose organ which has been granted the right of supradepartmental monitoring, certainly occupies an important place in our country's accident prevention system. Its immediate sphere of influence includes all components of road traffic. But something else is clear: road traffic can be made safe only by centralizing the activities of various state and public organizations.

[Question] Judging by the letters sent to IZVESTIYA, drivers still have a great many complaints about the Inspectorate's employees.



[Answer] Yes, restructuring the activities of the internal affairs organs and their component—Gosavtoinspekt-siya—has traveled a difficult path. For us, restructuring means improving our operating style and methods and strengthening personnel discipline and adherence to socialist law.

The adoption of the USSR Council of Ministers decree has provided us with greater opportunities to improve the effectiveness of these activities. Gosavtoinspekt-siya has modern equipment at its disposal. Basically, this means new monitoring and testing equipment, including that used for photomonitoring traffic control equipment and inspecting the condition of vehicles and highways of the network. Use of the latter scientific and technical achievements places a barrier on the unfortunately still existing cases of non-objective actions on the part of our associates. Computerization of the inspectorate's work rules out all elements of bureaucratism, and will prove to be more convenient for our citizens.

[Question] Anyway, no matter how much equipment we introduce into our lives, it will still be operated by people....

[Answer] Absolutely. And along with passing better traffic laws and successively expanding democratization and glasnost in the work of the GAI and strengthening ties with the labor collectives, the USSR MVD believes that improving its work with the labor force is the most important task. Lenin's principles on the policy towards workers are more timely today than ever before, and this is why the work to educate and train our personnel and to strengthen discipline and socialist legality is the most important link in restructuring all the activities of internal affairs organs. It is not out of place to mention here that the USSR MVD is presently preparing a series of proposals aimed at improving road traffic legislation. This will drastically reduce the number of minor violations involving administrative responsibility, will do away with the coupon on the driver's certificate and will increase the responsibility for certain flagrant traffic law violations.

Ultimately, safe road travel depends on each of us, and this is why in conclusion, I would like to wish the readers to remember that not only their own lives but the lives of the people around them depend on their behavior on our roads.

12659

## RAIL SYSTEMS

### Rail Transport Self-Financing Shortfall R1.6 Billion

18290105a Moscow GUDOK in Russian  
8 May 88 pp 1.2

[Article by M. Kaganskiy: "How to Find the Billion Needed by the Sector for Development and Reimbursement"]

[Text] At the beginning of this year, our sector changed over to full economic accountability [polnyy khozraschet]

and self-financing. But this, "in and of itself" has not happened. As noted at a meeting of the board devoted to the results of the sectors work in the first quarter, the railroad transport sector's gross expenditures exceeded its revenues by R1.6 billion. The sector is receiving this amount from the budget. This subsidy is connected to maintaining health care facilities, education, construction of subways and new steel mainlines which produce a large national economic effect, but which are operating at a loss for railroad transport.

This subsidy does not mean that the railroad workers can, so to speak, sit idly by.

The ministry board stated it clearly and unequivocally: the main-line solution to the problems associated with the expansion of transport is through maximum increases in revenues and reducing outlays by every means possible. The sector is faced with the task not only of reimbursing itself and paying for the implementation of its own production and social programs, but of contributing to the implementation of state and national programs as well.

And the basis for doing so are in place. A program has now been developed for improving the economic effectiveness of the transport sector's work. The sector must earn a minimum of R1 billion in above-plan profits during the five-year plan period, including R600 million from reduced operating costs. These figures were not conjured up out of thin air. They are the result of meticulous calculation backed up by organizational and technical measures.

For example, increasing the trains' traveling weight and speed should save R176 million. Changing the structure of the freight locomotive park, upgrading their major junctions and introducing mechanized production lines should save another R92 million. Improving the reliability of the railroad car fleet's operation, equipping it with roller bearings and mechanizing and automating rolling stock maintenance would generate R72 million.

But it appears that this is not the limit.

The results of the sector's work during the first sector are pleasing. For the first time in many years, the railroaders have met their quarterly quotas for all 17 state-order freight groups. Overall, the sector earned R209 million in above-plan profits. This is not just a virtue of the new economic operating methods, cost-accounting and self-financing, but there is no argument that their charitable influence has had an effect.

However, despite the excellent results, the sector's financial situation remains in a state of strain. And there are objective reasons for this. For example, the wholesale price increases of 1982 (when the depreciation norms remained unchanged) caused a scarcity in capital repair assets and a shortage of in-house circulating capital.

There are also a great many subjective reasons for the sector's financial straits. One of them is the fact that a number of railroads have not learned how to find new and non-traditional ways to earn profits; nor have they become real dealers. Their operating costs are still unjustifiably large.

At the meeting of the ministry board, quite a few cases of thoughtless, wasteful and even simply criminal squandering of assets were brought up. Not hundreds or thousands, but tens of millions of rubles were thrown to the wind on the railroads. Lines were constructed, upon which no railroad car wheel ever "set foot"—the lines were not needed. Sometimes, in pursuit of gross indicators, the railroads, provide worse transport servicing to their customers. It sometimes happens that empty consists run around the country at the behest of certain traffic controllers who are not particularly well versed in economics.

These miscalculations put a heavy burden on the railroad's operating costs, and reduce the efforts of hundreds of thousands of railroaders to nothing. Every year, tens of millions of rubles are paid out for overtime. Unscheduled locomotive repairs, expenses incurred by accidents and trainwrecks and other non-production related outlays amount to R20 million. The transport sector loses vast amounts of money by misusing its rolling stock. By the most conservative estimates, these losses exceed R100 million.

**Far from everyone has learned to save money by reducing their stocks of valuable goods and materials or to bring in additional profits from sales of unneeded equipment and surplus materials. Efficient organization of this matter could bring in no less than R200 million.**

And what about a resource like economizing capital investments! Directors of certain main administrations who are, as they say, unmindful, sign planning estimates which abound in "architectural" extravagances. They do not exclude unwarranted transport expenditures from the monies they spend. They do not stop attempts on the part of contractors and equipment manufacturers to provide themselves with a carefree life at the expense of the railroad workers. For example, the following cases were brought up at the board meeting: the main locomotives, railcars and passengers administrations failed to manifest a principled character when agreeing on prices for new rolling stock. As a result, its cost is swelling as if it were made with yeast. Thus, the price for a freight car has risen to R50,000, a passenger car costs up to R200,000 and the cost for an electric locomotive has risen to the astronomical amount of R500,000.

This is the visible manifestation of the braking mechanism. And it needs to be dismantled immediately. In the face of such "traction" it is difficult to attain any acceleration on the railroads. At present, it depends increasingly on competent and economical management skills.

They are slipping into the past, when the person who, as they say, had the loudest voice, made the most money. These days, priority dictates that he who works best earns the most.

But it is more like the railroaders have not grasped all this. Some people try the old tack of beating or forcing assets out of the MPS [Ministry of Railways].

We need to find a way out of this situation at every workplace, be it in the full sense a worker's position, a position of command or a staff position. But there are few who are of a mind to find reserves. It is important to be aware of strategic ways to economize and to determine the main channels through which monies are lost in order, as they say, to keep from using a sledge hammer to crack a nut.

What are the main ways to economize?

"The spending structure provides us with hints here," says MPS Main Economic Administration Department Chief A. Chumakov. "Around the sector as a whole, assets are distributed like this: about 40 percent is used for the wage fund, including deductions for social insurance, the portion for depreciation amounts to 35 percent and about 20 percent is used for fuel-energy and material resources."

Now let's proceed directly to sectorial distribution.

"Our locomotive operators cost us the most," says A. Chumakov. "They 'eat up' about 36 percent of all outlays. Second place is held by the Main Lines Administration, who receive roughly 20 percent. One more member of this expensive triad consists of the railcar workers, who use 17.2 percent. In the railcars sector, half of all expenditures go for depreciation, 34 percent for wages and 14 percent for materials."

The apportionment for track workers is approximately the same, with 55 percent for depreciation costs and roughly 30 percent for wages with deductions for social insurance.

In the locomotives sector, the largest share of expenditures—35 percent—is used for fuel and electric power, with depreciation costs, primarily for locomotives, at 20 percent. It is understood that the primary ways to reduce these costs are by economizing in every way possible on fuel and energy resources, improving the ways in which the locomotive park is used and increasing the productivity of the machines and the labor productivity of the brigades.

And the above, as we know, is still low. In numerous letters to the editorial board, locomotive operators complain that they are losing a great deal of time waiting for marshalled consists to be dispatched, and that they are

getting sunburned by light signals because of the ill-thought out and poorly organized work of the traffic controllers, who bear practically no responsibility for cheating the brigades.

The Main Traffic Administration is essentially an "shady office". Its share in the overall outlays is relatively small—about 6 percent in all. But the work of all the other subsectors depends precisely on the strategy and traffic tactics chosen by this administration. Miscalculations made by the traffic controllers find expression in completely concrete figures. In 1987, losses from down-time (primarily of locomotive brigades) exceeded R9 million. This is the price of a lack of administrative skill.

This game of "Solitaire" played with expenditures is average for the sector. But it is a reliable compass in the search for reserves to economize, and provides precise reference points in the search.

Naturally, the ratio can differ in specific enterprises, but the main lines for economizing and cutting back losses will be that same improvement in the use of fixed capital, increasing labor productivity and rational utilization of all types of resources. Every enterprise and subdivision needs to draw up a precise program and to work out an effective strategy and tactics for reducing operational expenditures.

And there is a wealth of local reserves. And the readers' letters published in today's letters section contain the most eloquent words on this subject.

12659

#### **Railway Conference Examines New Economic Programs**

*18290100a Moscow GUDOK in Russian 29 Mar 88 p 2*

[Article by GUDOK special correspondent M. Kaganskiy, Voronezh: "If One Digs Deeper—Thoughts After the Conference"; first paragraph is source introduction]

[29 Mar 88 p 2]

[Text] Recently, a system conference devoted to the operation of railroads under conditions of full cost accounting and self-financing was held in Voronezh. Responsible officials of the CPSU Central Committee, the USSR Council of Ministers, USSR Gosplan, the USSR State Committee for Prices, the Industrial Construction Bank, managers of financial and economic services of a railroad and railroad subdivisions and representatives of sectoral scientific-research organizations took part in it.

Many have spoken and written about the sector's problems of converting to full cost accounting and self-financing. But still all this talk was carried out as is said in a largely conjectural way. The fact is that there was no real practical work under the conditions of the new

economic mechanism. But suddenly it emerged. Of course, for several months the mechanism of management could not be fully manifested. But still even at first it was possible to detect tendencies, positive and negative, and to bring to light these or those rough spots so as in a timely way to prevent or to reduce negative consequences to a minimum.

And no new plan, even the most simple, exists without defects. The "structure" of a qualitatively new economic mechanism and improvement of management methods form an extremely complex system. As soon as it goes into operation, what hinders it—these and many other questions—must be answered by the conference.

It would seem that no grounds exist for skepticism. The January plan for the system as a whole was fulfilled for all the important indicators—overall shipment of freight, including all state ordered freight, passenger turnover, labor productivity and profit. Fifteen million tons of freight were shipped above plan and 90 million rubles of above-plan profit were secured. Costs were reduced 4.3 percent.

What more could one wish for? However, there should not be any rejoicing for there is not enough money either for production or for social construction.

But where is the paradox? There is no paradox.

"If one were to dig deeper, the impressive figures of overfulfillment and growth would not at all speak of 'great' achievements," N. Nikitin, chief of the Main Economic Administration of the Ministry of Railways, noted. "The January plan adopted independently by the railroads turned out to be nonintensive. Independence in the given case looks like playing it safe. And this is proved by the serious overfulfillment by many railroads of the plans they adopted."

I remember with what heat the railroads were trying to prove that there was no other way to transport. Well, try it yourself. Does this mean that they believe correctly at Gosplan and the main administrations of the USSR Ministry of Railways that the railroads are concealing reserves? What is this—real overcautiousness or a desire to take on a lighter load so as to overfulfill a target without having to work for it?

It probably is like that in part. But still I think there is a reason that lies deeper and is more serious. It obviously is to be found in the undeveloped structure of the economic mechanism. Participants at the conference designated its most important retarding points. One of them is the continuing imbalance of plans. As before, or at the behest of an industrial ministry, USSR Gosplan "injects" into state orders unrealistic sizes and unfirmed requisitions.

The following fact was offered. In January, coal miners and a number of other users failed to provide the Kuybyshev Railroad with 1.3 million tons of freight. As they say, the ink had not yet dried on the paper of the article "The Game in One Goal" ["Igra v odni vorota"] (see GUDOK, 12 December 1987) which referred to the same sort of situation as it was being repeated again.

Similar facts were presented by representatives of other lines. For example, in the region of operation of the Far-Eastern Railroad, overburden work had not been prepared at a number of mines in the Maritime region, a lag of 200,000 tons. For several months now a "friendly" correspondence has been going on concerning this at the Moscow Railroad—the coal miners' indebtedness exceeded 4 million tons.

The situation is no better at a number of other railroads in regard to construction freight and timber.

**Thus, "undermining" planning continues. Under these conditions it is naive to think that appeals to assume a heavier burden to those not bearing the responsibility of users and planning authorities for ill-considered decisions would oblige industrial leaders and economists of railroads to alter the strategy of "concealing reserves."**

Undoubtedly, it is not necessary to justify such actions. But on the other hand.... Failure to fulfill contracts, of no significance whatsoever for people ordering transport, creates a serious breach in material well-being without blame to the guilty railroad people. Is it really surprising that they select of two evils the one which will cost their pocket less? This incidentally quite possibly attests to the fact that they are beginning to turn to face the economy and to foresee losses. True, somewhat peculiarly. This is not their fault but an unfortunate problem which is still not being noted either in planning organs or in the main administrations of the USSR Ministry of Railways. As before, they still depend either on the strength of customary orders or on ephemeral appeals and slogans.

This is hardly an effective means today when economic levers are being put into operation. We clearly should be thinking and we need to think about intensification of their role.

It is difficult, of course, to judge its effectiveness in the early stages of the new mechanism of management as too little time has passed. But the tendency with which we are concerned cannot but help alarm one. It turns out that self-financing which should spur the railroads not to conceal but to reveal reserves does the opposite. Is it necessary as before to withhold reserves, even to the disadvantage of production and social programs, and to adopt nonintensive plans in order to more easily deal with them?

**Clearly certain miscalculations exist in economic regulations obliging personnel of railroads to behave in this way and in no other way. This means it is necessary to be concerned with changing economic guidelines and making them work in the requisite direction.**

Are there reassuring tendencies here? The conference's participants expected to hear this from A. Rostovskiy, chief of the subdepartment of railroad transport of USSR Gosplan. But he, alas, did not gladden them. The representative of the country's main planning organ preferred to speak of what everyone had already guessed. Of the fact that mistakes in planning exist, that there were no scientific studies for the transfer of transport to full cost accounting and self-financing and that they had embarked on this essentially blindly. He also confirmed that the profit produced by the sector does not provide for self-financing despite a release from payment for resources, reduction of pay into funds and other disguised subsidies from the state budget. That such an important tool of planning as a state order has not been fully worked out is to be seen in that in its present form it does not operate as it should. And that it has not been possible to really validate norms.

Well, a tribute to self-criticism was given in full measure. But beside further admissions of vaguenesses relating to norms, capital repair and capital investment, the participants heard nothing. True, the slogans "to solve in a revolutionary way" and "the more actively we shall look for the new, the more quickly will we solve all the questions" of the Gosplan representative contained no defects.

The participants of the conference also listened to revolutionary phrases from the representatives of the USSR State Committee for Prices, the USSR Ministry of Finance and other central economic organs. In essence, all their positive programs could be reduced to the appeal: let us think together what we should do now.

In itself, this "going to the people" can only be welcomed. And had it occurred earlier, it would have been priceless. I would like to remind you that the many problems "surfacing" in Voronezh were discussed about a year ago at the conference in Vitebsk. For example, imbalance of plans, lack of validity of norms and unfairness of many obsolete rates.

Reference was also made to the fact that the mechanism of profit distribution and cost-accounting relationships among the different units of railroad transport was insufficiently clearly worked out. The seemingly "seditious" thought was expressed: but is the sector ready for the transition to full cost accounting and self-financing or is this really self-deception? The participants of the Vitebsk conference then devoted attention to largely deserving proposals. These seemingly were not taken into consideration.

Arguments on different aspects of the transition to cost accounting and self-financing in transport are not abating on the pages of GUDOK. But the only result is that the paper prints them, and readers read them, but it remains silent as to who should adopt a decision.

I wish that this time following the conference in Voronezh greater attention will be paid to proposals from the localities. A portion of them fall outside the scope of competence of the USSR Ministry of Railways, for example, problems of planning, forming of state orders, rates, interrelations with the bank and a number of others. As the representatives of central economic departments declared at the conference, these proposals will be attentively studied. We hope that this is how it will be.

But there are many questions which can be solved even today without waiting for decisions and instructions "from above." This will be discussed in the material to follow.

[30 May 88 p 3]

[Text] The early but quite meager data so far on operation under the conditions of self-financing are convincing: on the railroads, while as yet timidly, they are beginning to measure income against expenditures and to look for ways of increasing the former and reducing the latter.

For example, on the October Railroad, they are even trying to transform waste into revenue. Let us say that the Tosno railroad car depot sells written off railroad cars for use as maintenance units for horticultural sectors or garages.

The subject on everyone's lips are complaints about leftover freight in cars which the railroads are foisting on each other. Sometimes 10-20 tons of freight are left over in railroad cars. Who is going to clean them out—there are no people, funds, and the rolling stock is in short supply and not up to being "cleaned out." But in Tosno they solved this "immovable" problem for others. They organized a cooperative at the depot. The entire contents of the "dirty" cars are turned over for its disposition. Remains include—waste paper, reinforced concrete, gravel and boards. Now the depot has no problem. The cooperative cleans out the cars and sells the remains for a sizable profit and even pays the depot 20 percent of the profit.

It certainly is commerce! A business approach to the matter! Such approaches are necessary under conditions of self-financing.

On the Donets Railroad, cost accounting was passed on to brigades. Every day accounts are totaled, and each one knows the results of his work. Foremen have been granted the right to create an incentive fund.

On the Kemerovo Railroad, the causes of losses are analyzed on a daily basis and on the Dnepr Railroad, they have begun to report on what is being done to boost earning power. Each cost-accounting unit—sector, brigade—forms a material incentive fund. Control over revenues has been strengthened.

So self-financing is somehow producing and obliges one, albeit timidly, to turn one's face toward economics.

The facts are gratifying. It is only a pity that they so far are the exception to the rule and have not yet become a system. And despite the appeals of the chairman Deputy Minister of Railways V. Butko and other responsible personnel of the USSR Ministry of Railways to conduct a discussion in this channel, most of the speakers determinedly kept their distance from these problems. As before, many of the conference participants saw as the main problem not their inability to set up things in a competent manner but rather the imperfection of economic levers.

There is no doubt that the economic regulations are far from perfect, and they need to be brought into line with life's needs. Everyone agrees on this. But how should it be done? This is what one would have liked to have heard from the meeting's participants. The fact is that finance experts and economists for the most part had convened, those who as a matter of fact have to put into operation the chief lever of the new mechanism—the financial one. We know that without money the most wonderful production and social programs are no more than "projects," baseless daydreams.

The role of finance experts today is great. It is no accident that they were called "movers of the economy" at the conference. Alas, they have not as yet shown themselves to be such. The results of the system's work speak for themselves. Not a single sector has received such additional monetary injections as that of the railway system, P. Kushnarev, chief of an administration of the USSR Ministry of Finance, stated. About 100 million rubles were allotted just for the material-incentive fund. And the grand total in different wrappers amounted to almost 700 million.

But that was spent not on what it was intended for! A lot of "tricky stuff" with respect to the money for capital repair work. It is used for building garages, housing and provision of amenities. And then they say there is not enough money. Often the money is spent on insignificant measures not resulting in increased yield of production capital and boosting of labor productivity or profitability.

No unity of operation exists between the economic and finance services on the railroads. As a result, they plan volume for which there is no money.



On a number of railroads, timely payment of bills is not required, credit settlements are delayed, and large above-normal stocks are created. For example, nonstandard equipment has accumulated amounting to 140 million rubles. But it has to be paid for. And this is how they run up millions!

Clearly, this aspect should be analyzed first of all. There are more than enough reasons for this.

Comrade Kobelkov, chief of the economic service of the Southwestern Railroad, cited the following example. Instead of the ChS4 locomotive, the more expensive ChS8 was foisted on the railroad. It is in two sections. In making up a train, the additional section displaces a car. This means that several tons of freight cannot be shipped on each such train. It is not difficult to reckon what revenues the line is deprived of.

Another example, the gap between operational and rate ton-kilometers reaches 10 percent. Why? The transport people, instead of unloading the crammed railroad cars at the station, often move the trains off to a distance. This results in tremendous losses.

The same thing occurs on many of the railroads. And here are to be found large reserves for boosting the profitability of the sector's operation. Actually, they have not started as yet in looking for many of them. At sectoral subdivisions, nothing has been started so far. At the same time, the fate of cost accounting and economic management is being decided at line enterprises and in workers' brigades.

The speakers themselves acknowledged that cost accounting has up to now not filtered down to the enterprises, but has gotten stuck at the divisional level. We have to "launch" it at depots, stations, divisions, brigades and work stations.

But who will do this—personnel of the ministry's main administrations? No, of course not. This is the railroads' work. But here as before they are trying to coordinate each of their steps with the ministry and to secure directive instructions for practically every sneeze. The habit of many years of "saluting" at the slightest pretext asserts itself.

Think on your own, decide on your own, that is what should be down speakers V. Butko and V. Pryadko said. But the next speaker ascends the podium and again the familiar "what is to be done?" or "give" are to be heard.

The only way to real independence is not by receiving permission from the ministry, but through economically competent operations. This calls for a good knowledge of market conditions, the dynamics of the region's development and a close tie with users. But it seemed that not all economic and finance experts have mastered this in due measure. Some do not even know the real state of affairs at their own railroad.

The new methods of management require enterprise and initiative. The conference graphically showed that the majority of the railroads are simply not ready for this. The law on state enterprises guarantees independence. They waited for it, demanded it. But then it came and the personnel of the economic services found themselves completely confused and do not know how to make use of it.

Economics is an exact science. Each unchecked step must be paid for. And how!

An ill-considered technical policy results in the spending of tens of millions of rubles to no purpose. For example, two new lines were introduced on the Transcaucasus Railroad, but there is nothing to transport on them, and they provide nothing except losses.

Even 10 years ago there were objections to the construction of these lines, V. Kopachkov, administration chief of the Industrial Construction Bank [Promstroybank], complained. We are now reaping the fruits of hasty decisions. And this unsound practice persists. But there no longer will be monetary resources. The carefree life with credit extension is now ended. We have to assume that what it adds up to is what it will cost.

Unfortunately, this lesson has not been used to advantage. The thoughtless squandering of monetary resources on the construction of such items which provide no payback is continuing. The consequence is that the personnel of main administrations and railroads must moderate an economically unjustified construction urge.

Other managers of railroads through habit see a "cow for milking" in the ministry and state, which has to provide them with "milk." And nobody asks of them if this "milk," if it can be called that, is to be poured off into the waste disposal system.

The representative of the Baykal-Amur Mainline complained of a big shortage of monetary resources. The complaints are seemingly justified for the railroad is in the red. People know this. But it would seem that logically if no where else but here every kopeck must be saved. Yet such has not been the case here.

V. Pryadko, chief of the Main Administration of Centralized Bookkeeping of Settlements and Finances, cited the following example. Tynda has its own hotel with only 6 rooms, yet 20 people service it. Each year, it shows a loss of 100,000 rubles. How many times have they tried to convince the people of the Baykal Amur Mainline to get rid of it! Unsuccessfully so far.

It is not kopecks that are frittered away, but tens and hundreds of millions of rubles, if you take the system as a whole. And subsequently it will be necessary to speak of raising rates. But they will have to cover socially necessary expenditures, and not mismanagement and

sloppiness. After all, their unjustified rise, unbalanced in regard to effect, will eventually also hit the railroad people and each of us like a boomerang.

A balanced rate policy is necessary that is tied in an integrated manner to all the sectors within the framework of unified regulation of prices. But as it turned out at this point, one can only dream of such a policy. A dispute got going between the finance experts of the Ministry of Railways and A. Dmitriyev, the representative of the USSR State Committee for Prices. The latter, while he spoke a great deal, did so quite incomprehensibly. Thus he was unable to explain sensibly and with solid reasoning the position of the USSR State Committee for Prices in regard to railroad rates.

"We will protect the interests of the user," he declared, "we shall not let the railroad people raise freight rates more than 35-40 percent."

And why not 60 percent? Or, let us say, the other way around—only 20 percent. Rates like any prices require serious validation. A free and easy approach to them costs us too dearly. But we did not hear any convincing reasons. They were replaced by absence of proof and the categorical character of the estimates. When a question touched on unjustified raising of prices for rolling stock, Comrade Dmitriyev avoided an answer, as if to say that is not one of my questions. And he had many such that were not "one of my questions."

Without valid prices for all components of the transportation process, it would be difficult to establish qualitative transportation servicing of the national economy.

A paradox: all decisions require boosting of quality, yet the economic mechanism operates in the reverse direction. The representative of the Moscow Railroad complained that they opened the Pavalets Railroad Terminal, improved passenger service and acquired losses as a reward for this. Revenues come from passenger-kilometers.

Quality should be given a monetary evaluation—such a thought was stated by participants of the conference, otherwise a load could not be moved from its place.

Railroad representatives awaited with impatience the speech of S. Zhuravlev, chief of the division of economics of the All-Union Scientific-Research Institute of Railroad Transport on how science will make us rejoice. After all, it has to, as they say, run in front of the locomotive, pointing out the way to the unknown. But it turned out that economic sectoral science is at a dead end. Works on cost accounting have been published by the All-Union Scientific-Research Institute of Railroad Transport, but there is nothing practical to get out of them, there are no effective scientific developments or vitally important methods. Even from the presidium sounded a rejoinder was sounded: you explain a picture

of irreparability in railroad transport. Everybody is entitled to ask scientist-economists what to do. But it turns out they have nothing to offer.

The multitude of questions which the conference speakers addressed the scientists remained unanswered.

And they were even raised a year ago at the Vitebsk conference. We think there was enough time for comprehension and generalization of the grains of that experience which exists in the system. It was not made use of. Now no time is left for thinking things over. We need to carry out perestroika on the go, to speed up research, to serve the work and practice and to create such an economic mechanism as would make it necessary to move lively. There simply is no alternative to this.

7697

#### **Ministry's New Foreign Trade Firm Detailed** *18290108a Moscow GUDOK in Russian 9 May 88 p 2*

[Interview with Zheldoreksport [Railroad Export] First Deputy Director Nikolay Ivanovich Grigorenko by GUDOK reporter M. Kaganskiy, under "Urgent Interview" rubric: "...And to Earn Currency: Zheldoreksport's International Orbits"]

[Text] (Editorial comment) The changeover to new methods of economic management—full cost accounting [polnyy khozraschet] and self-financing—requires a new economic strategy. We must now reject many customary stereotypes in the area of production control and organization, reevaluate our values and "take stock", so to speak, of our outmoded working forms and methods.

Recently these forms and methods have been responsible for retarding the development of our sectorial enterprises' foreign trade activities. They have also failed to create the conditions necessary to motivate our enterprises in what is a very important matter. The former procedure of delivering export goods through the Ministry of Foreign Trade's numerous associations and firms has not met the conditions for intensifying the national economy.

The rights and responsibilities of our production enterprises and organizations have now been considerably expanded within the framework of international collaboration. Many sectorial ministries, the MPS [Ministry of Railways] included, have been granted the right to get involved in export-import activities. Taking this into account, Zheldoreksport [Railroad Export], a cost-accounting foreign trade firm, has been set up within the Ministry of Railways. What will be its field of endeavor, and what are its basic goals and tasks? At the request of the GUDOK editorial board, N. Grigorenko, the first deputy director of this recently-organized firm, answers these questions.

[Question] Nikolay Ivanovich, this is the first time a firm like this has been set up within the MPS. Naturally we want to know about it in greater detail.

[Answer] We are going to be involved in activities to which we are unaccustomed—international commerce and the earning of currency which will be used in the development of railroad transport. For years, our sector has been placing too little emphasis on this matter. Even the word "commerce" has acquired a negative connotation. Even though by itself it denotes the skill to sell services and one's own output at a profit. Figuratively speaking, the Zheldoreksport foreign trade firm is a window into foreign countries, through which MPS enterprises' services and output will be exported. Moreover, the firm will be doing import work as well.

Right now, we are going through a difficult formative period. Our job is to shorten this period by all possible means and to expand our commercial activities.

[Question] And what specific goods are the railroads planning to trade? [Answer] It would be easier to tell you what we will not be trading. The railroad is a complex and multisectorial economy, and it is with good reason that the MPS is referred to as a state within a state. This sector has tremendous, albeit undiscovered potentialities for foreign trade activities. For example, our firm can help further expand foreign tourism. Railroad trips through our country are enormously popular. It is enough to name the Moscow-Leningrad and Moscow-Khabarovsk routes and trips throughout the Baltic, the Transcaucasus, Central Asia and other exotic places. However, very regrettably, we cannot meet the demands of foreign tourists for taking Soviet railroads everywhere and at all times. On the one hand, this doubtless does not show us in the best light as big-time dealers, but on the other hand, it does indicate that we are involved in a broad field of activity.

Or, for example, the bringing in of additional volumes of foreign transit freight, organizing their delivery on the USSR's railroads, and transport-dispatch service for international traffic. It is no secret that our tariff policy is not perfect: it lacks flexibility. This is why for many years we have been unable to increase the amount of transit goods we handle. And it is precisely this traffic which is one of our main sources of foreign currency.

Here's another example. Many frontier railroads have transport-dispatch offices, which are supposed to serve Soviet and foreign freight shipping organizations. However, their irregular organizational structure and poor material and technical base make it impossible for them to provide the necessary service. We hope that Zheldoreksport will succeed in improving their level of service.

Nor is this all. The sector has a modern repair base and can repair and can provide maintenance for rolling stock, machinery and equipment. Take, for example, the

experimental ring at Shcherbinka. Essentially, this facility is a test track which can duplicate practically any set of railroad conditions and can inspect the behavior of rolling stock and various units of equipment. Incidentally, a number of foreign firms are showing increased interest in these tests.

Our organization plans to expand export deliveries of a fairly broad array of products manufactured in our MPS plants. They include railroad automation, signalling and communications equipment, special railcars such as automatic-discharge hopper cars, track-measuring devices, defectoscopes, hydraulic permanent way tools and various locomotive- and railcar-servicing depot stands and accessories which are well known on the international market.

There are plans to provide foreign countries with technical assistance in railroad operation, to plan railroad transport facilities overseas, to turn over transport equipment for use or lease, to provide consultative services and an international traffic information service. And this is far from a complete list of the areas in which we plan to involve the firm.

[Question] Nikolay Ivanovich, you have said that this is a new business. But the ministry has already carried out many of the tasks on the list, so that international ties are to some degree traditional for railroaders.

[Answer] That is perfectly true. But there is no paradox or contradiction here whatsoever. Actually, foreign tourists and transit goods are nothing new for us. Our specialists participated actively in planning and building, for example, the Dzhulfa-Tebriz section in Iran, STsB [railway signalling] facilities in Argentina, and subways in Poland and certain other countries. But it turns out that our enterprises and specialists did all the work and Minvneshtorg [Ministry of Foreign Trade] and State Committee for Foreign Economic Relations associations got the contracts. They brought in foreign currency revenues for these operations, but paid the railroad people in rubles. This unequal partnership did nothing to stimulate the sector's foreign economic activities, nor did it expand the range of available transport services or improve their quality. Zheldoreksport has been called upon to stimulate the foreign trade activity of all the sector's enterprises and organizations and to get them interested in producing products for export. And we already have over 60 such products.

[Question] In other words, your job is to seek new goods and services which can be sold abroad?

[Answer] Yes, Zheldoreksport is the general placer of orders for railroad transport export products. They are already getting in touch with us. Recently, we got a call from an enterprise in Leningrad. They have the necessary financial assets, and asked us to help them purchase equipment.

[Question] But where are the calls coming from? Are foreign firms showing any interest?

[Answer] So far. For example, Japanese firms have been making inquiries about setting up shipments of their motor vehicles to Finland aboard special rolling stock. And various types of equipment will be sent back from Finland and West Germany in these same railcars. Our firm informs customers about route advances. This service saves them time and as a result produces additional currency.

[Question] So time is money?

[Answer] It is in commerce, and even more so in international commerce. Competitiveness can be achieved only by providing high-quality services, by reducing shipping time, and by delivering cargoes in compliance with strictly established deadlines. In order to do this, we have to improve the effectiveness of the work of all links in the transport conveyer.

Generally, Zhedoreksport is faced with serious tasks and a great deal of concern, primarily with regard to placing the firm's employees. We hope these problems prove to be only temporary. So what if you have to develop your operation on the run, to conduct a "battle on the tracks", to learn commerce by on-the-job training? The well-known Soviet writer Konstantin Paustovskiy said, "People walk about the land, trampling 10-ruble notes underfoot." We have a great many unused resources in railroad transport. The Zhedoreksport collective sees the search for additional sources of currency revenues and using them in the service of the five-year plan as its primary task.

12659

### **BAM Construction Problems Noted**

*18290109a Moscow GUDOK in Russian 13 May 88 p 1*

[Article by S. Kokorev under "Meeting the 19th All-Union Party Conference" rubric: "Is This Patronage Necessary?"]

[Text] Larba-Tynda—The whole country is involved in building the BAM [Baykal-Amur Mainline]. And this is the unexaggerated truth. There are also relocated workers from many regions working on the mainline these days. By not just taking charge of its own section of the project, but by also trying to impart its national color to it, a republic, kray or oblast is acting as the patron for almost every BAM station.

The beautiful Niya Station was built by Georgians, who are now building a second station—Ikabya. Workers from Sverdlovsk erected the settlements of Kuvyktu and Khorogochi. They even brought Kaslinskiy casting from the Urals.

But construction project chiefs work in different ways. Where the workers from Moscow, Leningrad and Chel-yabinsk, and the Uzbeks and the workers from Krasno-dar exceeded their monthly plans during the first quarter by 30-50 percent, the workers brought in from Kazakh-stan, Turkmeniya, Belorussia, Armenia, Lithuania and Estonia were barely able to fulfill theirs by 70-95 percent.

Last year, inspection teams imposed fines amounting to hundreds of thousands of rubles on construction chiefs for defective work. Yes, no matter how regrettable it is to admit this, some of the people on the BAM do worse construction work than they do at home. This can be explained in part by their lack of experience working in uncustomary natural and climatic conditions and by poor supervision. Bamtransstroy [Baykal-Amur Main-line Transportation Construction] does not believe in interfering: they say "These are not our organizations—they are subordinate to their own ministries and depart-ments." Artificially dividing workers into "ours" and "theirs" does no one any good. An example of this is the Turkmenbamstroy SSMP [Special Construction Train], where all the problems are tangled into a knot.

The workers from Turkmenistan are building the Larba Station. Upon arriving, the first thing I see is an unfin-ished stele, after which I admire the skillful finish work on the facades, which are trimmed in tuff and travertine, a quaint Turkmen decoration. The unfinished stele is like a symbol of the troubled affairs of the special construction train. And it is simultaneously a reproach.

Along with Comrade Afonin, party committee secretary and Comrade Makarov, association representative of the Tyndatransstroy [Tynda Transportation Construction] Trust, a general contractor on this project, we had occasion to witness a spontaneous workers' meeting in Turkmenbamstroy [Turkmen Baykal-Amur Mainline Construction Association]. The meeting was initiated by Party Organization Secretary Anatoliy Chukharev, a train veteran, and a restless and exacting person. He is painfully offended, after all the years he has spent laboring ardently on the BAM, to see what the train has to roll up to. And here, the party committee secretary painfully spoke out once again:

"Comrades, you are back to square one. Your Chief Grebenshchikov went off to Tashkent and has provided no news about himself. It was only by accident that one of the people on leave of absence from the railroad project found out that Vladimir Andropovich is being treated for hypertonia in a republic hospital. But even before this, you had nothing to brag about. It has come to the point that only 35 of the 113 persons on the train are involved in construction and installation work. And Turkmenbamstroy's financial situation is extremely dis-turbing."

After Afonin, Installation Link Leader Aleksey Khyavkhyia addressed the meeting. Bitterly, he noted that the workers, instead of setting about building the

public trade center, spent an entire month hauling away the ice which had covered the foundation since autumn because of poor drainage. This project, which is costing R1.2 million, was to have been turned over this year. But it is perfectly obvious that this will not take place.

It is as if everyone has lost control. They have been saying they could not break the ice away at two other projects as well—the baths and the vegetable storage facility. The first of these was to be put into operation during the third quarter, but there were not enough panels or bricks. There are no cement mixers or spare parts for the construction equipment.

The Larba workers anxiously await the 100-ton-capacity vegetable storage facility. There is nowhere in the settlement to store potatoes and cabbage. It is not a complex facility. It could be built very quickly, and by building it, the railroad project could wipe out its debts. But there have been problems with materials here, too.

The following is the opinion of Comrade Dashkevicha, chief of Tyndatransstroy Trust's production department, regarding this scarcity:

"Of course, the trust has plenty of supply problems. But the other trains are having no better luck than Turkmenbambstroy in getting their supply requisitions filled. However, they are managing to fulfill their plans.

But at the meeting, Anatoliy Chukharev accused Comrade Angelovskiy, the chief engineer and acting SSMP chief, of lacking substantiated requisitions for materials, and of insipidly protecting the train's interests at trust meetings, when weekly and daily planning is discussed.

Electrician Valeriy Safronov and Ivan Braylitsa, head of the industrial base, supported Chukharev. And they also discussed cases of impudent, and at times simply insulting behavior towards train representatives on the part of the trust and Bamtransstroy. One of them recounted all the times they had sought additional construction equipment in vain, and the other could not help but be offended upon hearing someone from the trust say, "Here come these Asians, begging again!"

One of the engineering and technical personnel remarked that everything hinges on equipment, on a single solitary crane which was being torn to pieces. This was corroborated by the chief engineer, who retorted, "And I wrote a lot of notes reporting it!"

As to how a lack of even elementarily organized labor affects people was made obvious in an address by a saw frame brigade leader. He said there was nothing he could do about writing orders at the end of the month. He is only trying to find a way to get out of charging people more, if only a little. "You would be better off dispersing us," he said to Angelovskiy "since you can't provide us

with a skidder and a crane." In response he heard, "And there have been cases of drunkenness among you." Does such squabbling really help solve problems?

The meeting concluded with an extremely interesting report from the secretary concerning the dismissal of SSMP Chief Grebenshchikov from his post. Actually, he has more than enough transgressions on his record, ranging from incompetence to total disregard for people's needs. Selections of new directors are doubtless long overdue. All the more since Turkmenistan doesn't care if these selections on the BAM turn out to be good ones.

We are presently attempting to conduct an objective analysis of the situation in Turkmenbambstroy. What can be done and what needs to be done in this crucial situation?

Let's start with the fact that the TuSSR is directly responsible for constructing Larba's industrial and civil projects. But the republic has an extremely vague notion of Larba. Until recently, TuSSR Minsstroy has been of no help whatsoever to its relocated workers. It was only after his visit to the BAM at the beginning of this year that the deputy minister provided a ray of hope that the train might augmented with skilled workers and up-to-date equipment.

I will take the risk of advancing the following suggestion: frankly speaking, isn't the reason the republic's directors pay so little attention to having their train on the BAM because there are no longer any Turkmen working on it? There are Georgians, Ukrainians, Russians and Moldavians as well. But the last Turkmen left last autumn after having written on their applications "I wish to be discharged because of the onset of cold weather." Funny? Not really; it's sad. The southerners were not accepted in Larba as they should have been. They did not feel at home here. The railroad project did not publish Turkmen newspapers, the canteen didn't bake Turkmen flat-cakes, no green tea was imported....

And things haven't improved nowadays. I looked in on a boarding house where nine stonemasons on a work assignment from Turkmeniya were being lodged. They were taking their dinner break. Four of them were having their feast on a cotton blanket which had been taken off the bed and spread out right on the floor. It turns out that they had not been provided with any chairs. That is how it has been on their jobs.

"We came here," says Sapar Dzhumamuradov, "ready to work even unpaid days, but so far, all we've done is remove ice from the TOTs [public trade center] foundation pit."

Bardin Kerimov and Tagan Chuliyev subtly mentioned that acquaintances of theirs who had been in Larba earlier were paid the same amount as they received at the Chardzhoustroy Trust at home.



"When there's no work, there are no wages," agreed Khasan Khamzin.

Just then a drop of water fell from the ceiling into their bowl of soup. I looked up and saw that the entire ceiling was a colorful confusion of modelling clay seams. Specialists are due to come in from Turkmeniya soon. How are they supposed to live in such conditions?

Unfortunately, neither this republic's Sovmin [Council of Ministers] or its Minstroy [Ministry of Construction] have put the question of the working conditions of their relocated workers before Glavbamstroy or the local Soviet or Party organs. However, BAM employees could level a few complaints as well: frankly, Turkmenistan sends out its worst specialists. V. Pozdnyakova, chief of the planning department of lead Repair and Restoration Train No 28, of the Tyndatransstroy Trust, presented me with these data: when it was acting as the general contractor train, the lead wrecking and repair train paid about R30,000 for defective work on this project. This was allowed by the chiefs during the construction of a single school. More than once roofs had to be redone because Turkmenistan's roofers turned out to be amateurs.

Pozdnyakova asks, "Who needs this kind of subdivision on the BAM? The state plan hasn't been fulfilled in years. The construction workers haven't been paid for a month and a half. The chief of our train suggested that Turkmenbamstroy be turned into a construction section for the lead breakdown and repair train. This would be a good idea from the standpoint of construction production and cost-accounting [khozyaystvennyy raschet]."

And what happens now? Well, there will be one less chief on the BAM, but in exchange there will be one profitable subdivision more. No one needs patronage for checking off items. There is another way: helping Turkmenbamstroy to get on its feet and finish building the station. But drowning people shouldn't have to rescue themselves.

The next time I come to Larba, I don't want to see the unfinished stele again.

12659

UDC 656.212.7.073

**Increasing Efficiency of Container Transport**  
*18290106a Moscow ZHELEZNODOROZHNY  
TRANSPORT in Russian No 3, Mar 88 pp 32-35*

[Article by A. I. Yeroshenko, chief engineer, North Caucasus Railroad and Candidate of Technical Sciences N. M. Ivanitskiy: "Concentrating Loading Operations"]

[Text] Rostov-na-Donu—In view of the constantly increasing traffic in national economic freight, the problems of improving the efficiency of transport equipment

use while reducing transport costs have acquired particular importance. One way to improve this work is to introduce advanced methods for organizing transport servicing enterprises and organizations. With this goal in mind, the North Caucasus Railroad has developed and is sequentially implementing a comprehensive plan to consolidate loading operations. The plan calls for freight-loading stations in major transport centers to be specialized to handle specific types of cargoes. It also calls for agricultural cargo handling to be concentrated at support stations, for widespread development of containerized freight delivery, for short-haul freight traffic to be transferred to motor transport and for the overall stabilization of stations and their attendant branch lines.

**SPECIALIZATION OF RAILWAY JUNCTION  
FREIGHT OPERATIONS**

As practice has taught us, freight turnover causes difficulties primarily in railway junction operation because of the lack of preparation on the part of the freight stations to receive and handle this increased freight flow promptly. These difficulties crop up both on the branch lines and at general-purpose sites as a result of the insufficient traffic capacity of the freight-loading facilities, the large volume of sorting work required when marshalling train consists and the shunting work needed to bring up and position freight cars at the transloading points. One of the primary reasons for this is the fact that for a long time the loading yards were built to handle all types of freight: containerized, crated-piecemeal, bulk, heavyweight, etc.

In the not-too-distant past the Rostov, Krasnodar, Grozny and Taganrog junctions handled all their freight at one common freight depot station. For example, the Rostov-Tovarnaya [Goods] Station handled all types of freight, having 7 freight areas and 24 independent railcar-feeding facilities available. The "universality" of this freight depot necessitated a great deal of shunting work. The freight depot alone had 3 shunting locomotives working, and the need to expand the railcar-feed front in a particular freight zone caused even greater difficulties. Nor was it possible to use large-scale mechanization equipment. The upshot was that the freight depot was unable to handle the incoming freight flow.

This is why it was decided to specialize railway junction freight yards to enable them to handle specific types of freight. The Rostov Railway Junction's bulk freight unloading operations were moved from the Rostov-Tovarnaya yard to the Promyshlennaya [Industrial] yard, where a freight depot was built for unloading broken stone, sand and other construction-related loads from rail cars, with all freight car unloading and truck loading operations completely mechanized. Bulk freight-processing problems were solved, taking into account the outlook for an increased freight flow. The use of highly-productive mechanisms and the construction of elevated tracks reduced the change time for the freight cars and trucks used in the loading operations by 40 percent, and

the processing cost per ton of freight by 12 percent compared to processing these cars at the previously-used freight depot. A third container yard was built on the site of the Rostov-Tovarnaya yard's now-unused bulk freight processing facility. At the same time, heavy goods and timber unloading and loading operations were moved from the freight depot to the Zapadnyy [West] Station. A special freight depot was built and equipped with powerful gantry cranes to handle this work. Another container yard, specially designed to handle large-tonnage containers, was built at the Rostov-Tovarnaya yard where these loads were previously processed.

The combined measures taken to consolidate freight operations within the junction have made it possible to carry out container and crated-piecemeal freight processing at just the Rostov-Tovarnaya yard. This has facilitated the use of powerful hoisting equipment, has cut down shunting operations by a factor of three, and has reduced the change time of the wagons during loading operations. Where the change time for freight cars being loaded with bulk cargos took 30-35 hours, and for those being loaded with heavyweight and timber loads took up to 40 hours before freight operations were consolidated, it now takes no more than 17 and 23.6 hours respectively at the Promyshlennaya and Zapadnyy yards. Our figures show that it would take 2.3-fold more capital outlays to handle the increasing freight flow by expanding the facilities at the Rostov-Tovarnaya yard's universal freight depot. Moreover, the station's entry-exit and shunting sidings would have to be renovated. At the same time, another crucial problem was solved: loading operations have been eliminated at the Bataisk shunting yard, the railroad's largest, with that yard's freight flow transferred to the specialized freight depots of the junction's stations.

Local party and Soviet organs actively supported consolidation of freight operations at the Rostov Junction. The pace at which the developed plan was implemented was approved at the coordinating council's meetings. The experiment to improve the junction's freight operations was widely approved by the city's enterprises and organizations, which have now effected substantial savings thanks to the reduced production costs for transloading operations, and thanks to accelerated freight deliveries and elimination of their former loading limitations. Now all the yards receive local freight trains without fail, and consistently meet their assigned railcar change-time quotas during loading operations. They handle the local freight flow smoothly during winter as well. They have built enough loading areas to handle their processing volumes. Eliminating the numerous repeated selections of freight cars to be fed to the unloading areas has greatly reduced the number of shunting operations. The trucks which are specially designed for centralized delivery and hauling out freight are being used more efficiently and their non-productive idle time waiting to be loaded and unloaded has been eliminated.

Considering the experience thus far gained in consolidating the processing of local freight, a similar effort has

been carried out at the Krasnodar, Mineralnyye Vody, Groznyy and Stavropol junctions. In Krasnodar, for example, a new freight depot, specially designed for processing containers and crated-piecemeal freight, has been built. This has lightened the Krasnodar I station's workload, and has made it possible to handle the 30-percent-greater freight flow smoothly and with 20 percent less change-time for freight cars during loading operations. The Groznyy Junction has moved bulk and heavyweight cargo loading and unloading operations to the Khankala Station rather than the Groznyy Station. Special-purpose freight depots have been built at the Skachki Station (Pyatigorsk) and the Staromaryevskaya Station (Stavropol), in Mineralnyye Vody and Stavropol.

Introducing advanced methods of organizing loading operations at our railroad junctions allows us to set up processing capacities while taking into account the handling of the long-term freight turnover and promotes the use of automated control systems [ASU's] in freight yards. The Rostov-Tovarnaya yard put a container station point with automatic control system into operation at the same time it improved its loading operations. The same thing was done last year at Krasnodar. It should be mentioned that bringing an ASU into a specialized freight depot requires one-half to two-thirds less capital outlays than an ASU for a general-purpose freight depot with the same freight-handling capacity.

The implementation of measures for consolidating freight-handling operations on the railroad are being combined with improvements in the control of the operation of the junctions. Experience shows that the greatest effect comes from uniting all freight yards in a junction are united under a single operational leadership. At present, the Promyshlennaya Station has been subordinated to the Rostov-Tovarnaya Station. Three of the Krasnodar Junction's stations, i.e., Krasnodar I, Krasnodar II and Krasnodar-Sortirovochnyy [Shunting] have been united under the leadership of the Krasnodar-Sortirovochnyy Station. The Groznyy Junction's Khankala Station has been subordinated to the Groznyy Station. This simplifies the operational leadership of the station's operation, reduces the number of export locomotives by using more intensive use of shunting locomotives, increases labor productivity and speeds up the railcar turnaround. Thus, for example, combining the Khapry and Gnilovskaya station under the unified command of the Zapadnyy Station has freed up one shunting locomotive, reduced the number of permanent workers by 60 persons, reduced freight car change time during loading operations by 7.5 hours and has greatly improved the transport servicing for the freight shippers and recipients.

To be sure, capital outlays are required to concentrate freight operations in the junctions, but their payback time is short. Thus, R8.8 million were invested in building special-purpose freight depots at the Rostov Junction, and R2.5 million in operational outlays are saved every day. The railroad pays for construction of

new freight depots and upgrading existing depots out of freight storage charges at general-purpose locations. And 20 percent of the capital outlays used to expand the freight economy are assimilated by using the in-house forces of the construction sections organized at most of the large freight yards. This direct-labor method is used to put over R1 million in new facilities into operation annually.

Concentrating freight operations in the junctions is consistent with expanding the stations' equipment shops. This makes it possible to attain high indicators for the use of freight cars and other equipment. For example, electric interlocked switches have been put into operation at the stations of the Rostov and other major junctions. This has sped up shunting operations and has freed some of the diesel shunting locomotives for other work.

A number of measures related to the social development of our labor collectives have been implemented in the course of improving freight operations. Modern amenity rooms have been built, medical stations have been opened and the territories around the special-purpose freight depots in Rostov, Krasnodar, Groznyy, Stavropol and Pyatigorsk have been put into order. Housing is constantly being built. In the last five years 400 apartments, 4 young people's rooming houses with 450 places, two sports and health complexes for freight yard workers and kindergartens for 200 children have been built. All this, combined with advanced production methods, has increased the freight industry's workers' labor productivity by 28 percent, has raised their wages by 19 percent and has reduced the labor-force turnover.

### CONSOLIDATING AGRICULTURAL FREIGHT PROCESSING

Large-scale organizational measures are being taken to enable the railroad to handle the growing volumes of rural freight traffic and agricultural output efficiently. They are designed to concentrate the processing of agricultural freight at support freight yards and to raise the level of complex mechanization of transloading operations, to improve the methods used to transport mass agricultural freight, to provide smoothness in the freight-transporting process while using a variety of modes of transport and primarily to facilitate the changeover to directly combined railroad-motor transport. Provision has also been made for introducing industrial methods of preparing closed cars and special rolling stock to be loaded with grain and other agricultural products, for developing through train and block train routing of empty cars sequenced at the preparation yards as well as those loaded with agricultural output, and for strengthening collaboration with agroindustrial enterprises etc.

Support freight stations, which appeared on the railroad at the first stage of freight operation consolidation, are the most important link in the transport servicing of the

agroindustrial complex. In recent years they have been supplied with a great deal of equipment. Up to 90 percent of the freight cars arriving with cargoes for agricultural enterprises are processed here by mechanized transloading subdivisions. At low-traffic stations where it would make little economic sense to set up a freight facility and permanently maintain loading and unloading equipment and workmen, freight cars with cargoes for the agriculture industry are unloaded by traveling mechanized columns. Closing the low-traffic yards for use in freight operations and concentrating freight-processing operations at support yards is economically profitable, as it reduces prime processing costs by a factor of 3.5-4 per ton of freight. This progressive measure reduces transport costs for kolkhozes and sovkhozes and cuts down on freight car change-time.

With the goal of further improving transport servicing for agriculture, railroad specialists, working with scientists from the RIIZhT [Rostov Railroad Transport Engineering Institute], have developed an integrated plan for retooling and expanding support stations during the current five-year plan period. In accordance with this plan, it has been decided that the processing of freight for Rostov Oblast agricultural enterprises will be concentrated at 16 support freight yards, each of which serves 1-3 prescribed rural areas. In order to centralize freight shipments to addressees, special motor transport enterprises have been attached to the support yards. Over R61 million in capital investments have been allocated to expand these support yards, with the oblast Agroprom holding R20.2 million in shares, the oblast consumer's union holding R7.5 million, and Rostovgruzoavtotrans holding R6.4 million. Along with increasing the amount of equipment available to the workers at the yards and mechanized transloading operations subdivisions, plans call for the building of over 960 apartments, with a total living area of roughly 47,000 square m.

The above plan is being successfully implemented. Last year alone, 5 low-traffic stations ceased freight operations, and 4 more are slated to be shut down this year. In two years, more than R14 million in capital outlays were spent to expand support stations, and 215 apartments were built. Similar plans have been worked up for the Krasnodar, Tuapse and Caucasus divisions.

Research conducted by RIIZhT has shown that it is economically advisable to carry out the second stage of consolidation of freight operations in the Krasnodar Kray. It was recommended that 45 low-traffic stations cease freight-handling operations, and that 56 stations stop receiving and dispatching small-scale freight shipments. Over R1 million per year are being saved just by reducing the prime freight processing cost, not counting the amount saved by cutting back on the number of personnel who are presently being supported by kolkhozes and sovkhozes at low-traffic stations. The security of transported freight, primarily mineral fertilizers, cement, lime and salts has also been markedly improved.

Determining the optimal number of support stations in a region is a complicated affair which requires a study of freight dispatchers' and addressees' transport links, of the production and financial relations of motor transport enterprises, mechanized transloading operations subdivisions and other subdivisions. The work needed to conduct this study is being done using a technique developed by the RIIZhT freight transport department, in accordance with which ways are sought to keep transport costs to a minimum when transporting agricultural freight. We feel that freight operations in the North Caucasus should be concentrated at the least number of stations, and that this should be done in two stages. With the consent of local ispolkoms, the first stage calls for the shutting down of all low-traffic stations handling less than 3 freight cars per day, and where there is no mechanization equipment or storage yard, and that their freight flow be transferred to neighboring support stations. According to the research, and considering the lowest transport costs, this is the stage at which support stations should be allocated for each line section. Their technical expansion should match their prospective freight flow. Moreover, provision should be made for the possibility of further expanding the storage yards by renovating existing or building new freight yards, which will guarantee that the freight flow transferred from the low-traffic stations can be handled. All concerned departments and organizations, which mainly consist of agroindustrial complex enterprises, consumer's cooperatives, construction organizations and motor transport management, should take part in renovating the support stations. The oblast soviet for coordinating transport operations, which devises measures for accelerating shareholding in the development of support stations and which also prescribes the sequence for shutting down low-traffic stations at the second stage of this concentration, can take charge of this work.

### FREIGHT TRAFFIC CONTAINERIZATION

Delivering freight for transport via the progressive container method helps concentrate the freight flow at the stations which were opened for the purpose of handling this work. At the same time, solutions are being found to the problems of raising the level to which loading and unloading operations are mechanized. The railroad is presently taking steps to greatly increase containerized freight traffic, primarily of large- and small-tonnage freight. A long-term plan has been developed and is being implemented to change over a number of cargoes to being transported in large-tonnage containers. Plans call for a major expansion of the stations' operating areas by opening new shipping and receiving container yards. A total of 19 new large-tonnage container yards are slated to be built and put into operation. Counting the container yards presently operating on the railroad, the railroad's entire area of application will be serviced by this progressive mode of transport. The average distance 20-ton capacity containers are delivered by motor transport is not more than 30-50 km, which allows practically all freight shippers and receivers in the North Caucasus

region to use them, as the stock of these large-capacity containers increases. An analysis of freight flows in the divisions has been used to determine freight-flow volumes to be changed over from being shipped in boxcars to being shipped in containers. The possibilities for using large-scale enterprises' and organizations' branch lines to open up container yards has also been investigated. Some of them presently handle containers on their branch lines.

Further increases in the transporting of freight in large-tonnage containers are presently being hindered by the insufficient number of stations specially equipped to handle them. And in many cases the railroad has been forced to refuse to allow freight dispatchers to send large tonnage containers for loading, which thus increases the number of empty runs. We feel that the plan for constructing large-tonnage shipping and receiving yards needs to be reviewed. It is neither difficult nor costly to build these yards (one yard costs R50,000-R100,000), and they can be built using in-house resources. Also, more 30-32-ton capacity gantry cranes need to be delivered to the railroads.

Changes are needed in the train marshalling plan and in the train timetable. In our view, constant container-train turnover, which speeds up deliveries of valuable freight and greatly enhances its security, needs to be reexamined. Calculations indicate the economic advisability of year-round container-train turnover between the Rostov-Tovarnaya Station and the Moscow Junction, as well as in the direction of Krasnodar and Mineralnyye Vody. These trains are already providing local service.

Not all ministries and departments are meeting their quotas for increasing containerized freight shipments, and in many cases the departmental approach has hampered the development of this progressive freight delivery technique. As strange as it seems, the level of containerization of exported and imported cargoes amounts to only 0.05 percent of the total amount of freight handled in Novorossiysk, which is one of the country's largest seaports. This situation has come about because foreign trade organizations believe that it is unprofitable to pay a container charge and place their seals on loaded containers. The departmental approach causes serious harm and we cannot agree with the notion of using old methods of transporting highly valuable and important freight because of presently-existing differences of opinion. The use of packets to ship export and import freight is faced with a similar situation, the upshot of which is that this freight is being processed manually when loading and unloading ships and freight cars. Many of the documents now used to regulate railroad and water transport subcontractors' relations are obsolete.

The implementation of the integrated plan for concentrating freight-handling operations is having a substantial effect on organizing shipments of local freight via railroad. The level of unloading operations has been

markedly raised, which allows the railroad not only to fulfill the regulated quota for empty freight car turnover, but also to provide a steady supply of empty rolling stock for meeting the loading plan. Freight-car change time has been cut by 8 percent per single loading operation. Our collaboration with the agroindustrial complex has become smoother and mutually more profitable. Freight car change time during loading operations has been reduced, and kolkhozes and sovkhozes are enjoying no little advantage from the reduced cost of loading and unloading operations.

Positive results have been achieved in the organization of freight-loading operations thanks primarily to our having taken the correct direction for improving our operational work. Had we not carried out this consolidation, we would have been forced to put no less than an additional 60 diesel shunting locomotives into operation and to increase the number of permanent employees by more than 3,000. In fact, the freight-handling sector and its services have reduced the number of workers by 1,500 persons in recent years.

The broad prospects for improving all the operational work are allowing us to simultaneously implement measures to improve freight-handling operations and concentrate dispatcher control in a single or in several

railroad centers. Concentration of freight-processing operations in a section and uniting stations in a junction under a single operational command has simplified the work of branch line dispatchers and has reduced the number of local freight trains.

The integrated plan for concentrating freight-handling operations is slated to be implemented at the end of the five-year plan period. This will make it possible for the railroad to steadily handle the increasing freight flow. Plans for the future call for the carrying out of a third stage of concentration of freight-handling work. Large railroad junctions will concentrate the processing of freight in their freight transport complexes, will make extensive use of automated equipment during loading and unloading operations and will precisely coordinate their work with the motor transport sector.

COPYRIGHT: "Zheleznodorozhnyy transport", izdatelstvo "Transport", 1988

12659

END



10

This is a U.S. Government publication. Its contents in no way represent the policies, views, or attitudes of the U.S. Government. Users of this publication may cite FBIS or JPRS provided they do so in a manner clearly identifying them as the secondary source.

Foreign Broadcast Information Service (FBIS) and Joint Publications Research Service (JPRS) publications contain political, economic, military, and sociological news, commentary, and other information, as well as scientific and technical data and reports. All information has been obtained from foreign radio and television broadcasts, news agency transmissions, newspapers, books, and periodicals. Items generally are processed from the first or best available source; it should not be inferred that they have been disseminated only in the medium, in the language, or to the area indicated. Items from foreign language sources are translated. Those from English-language sources are transcribed, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [ ] are supplied by FBIS/JPRS. Processing indicators such as [Text] or [Excerpts] in the first line of each item indicate how the information was processed from the original. Unfamiliar names which are rendered phonetically or transliterated by FBIS/JPRS are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear from the original source but have been supplied as appropriate to the context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by the source.

## SUBSCRIPTION/PROCUREMENT INFORMATION

The FBIS DAILY REPORT contains current news and information and is published Monday through Friday in 8 volumes: China, East Europe, Soviet Union, East Asia, Near East & South Asia, Africa (Sub-Sahara), Latin America, and West Europe. Supplements to the DAILY REPORTs may also be available periodically and will be distributed to regular DAILY REPORT subscribers. JPRS publications generally contain less time-sensitive information and are published periodically. Current JPRS publications are listed in *Government Reports Announcements* issued semi-monthly by the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161 and the *Monthly Catalog of U.S. Government Publications* issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

U.S. Government offices may obtain subscriptions to the DAILY REPORTs or JPRS publications (hardcovers or microfiche) at no charge through their sponsoring organizations. DOD consumers are required to submit requests through appropriate

command validation channels to DIA, RTS-2C, Washington, D.C. 20301. (Telephone: (202) 373-3771, Autovon: 243-3771.) For additional information or assistance, call FBIS, (703) 527-2368, or write to P.O. Box 2604, Washington, D.C. 20013.

The public may subscribe to either hardcover or microfiche versions of the DAILY REPORTs and JPRS publications through NTIS at the above address or by calling (703) 487-4630. Subscription rates will be provided by NTIS upon request. Subscriptions are available outside the United States from NTIS or appointed foreign dealers. Back issues or single copies of the DAILY REPORTs and JPRS publications are not available. New subscribers should expect a 30-day delay in receipt of the first issue.

Both the DAILY REPORTs and the JPRS publications are on file for public reference at the Library of Congress and at many Federal Depository Libraries. Reference copies may also be seen at many public and university libraries throughout the United States.